

THE PRODUCER

THE NATIONAL LIVE STOCK MONTHLY

Volume I

DENVER, COLO., NOVEMBER, 1919

Number 6

The Cattle Industry of the Southeast

BY GEORGE M. ROMMEL

Chief, Animal Husbandry Division, Bureau of Animal Industry

SYSTEMATIC BEEF-CATTLE PRODUCTION in the southeastern states is a development of the past fifteen years. Of course, there have always been cattle in that section of the country since very early times, and many parts have been really notable in the beef-production methods which they have employed. The first recorded importation of Shorthorns to the United States was made into Virginia. The descendants of these cattle, and others like them, formed a basis for the export steer business of southwest Virginia, and to this day Shorthorn steers predominate in that part of the Old Dominion. Likewise, we find Shorthorn, Hereford, and Angus cattle of finish and quality, and pure-bred herds of note, scattered all through West Virginia, Kentucky, and Tennessee.

As we go farther south into the area which was for so long under quarantine on account of Texas fever, we approach the section which I have in mind. Roughly speaking, this is the Cotton Belt. Here cotton is king, and always will be the leading money crop; but the advent of a diminutive enemy in vast numbers threatened the dominance of King Cotton, and brought about a complete change in the agricultural methods of the

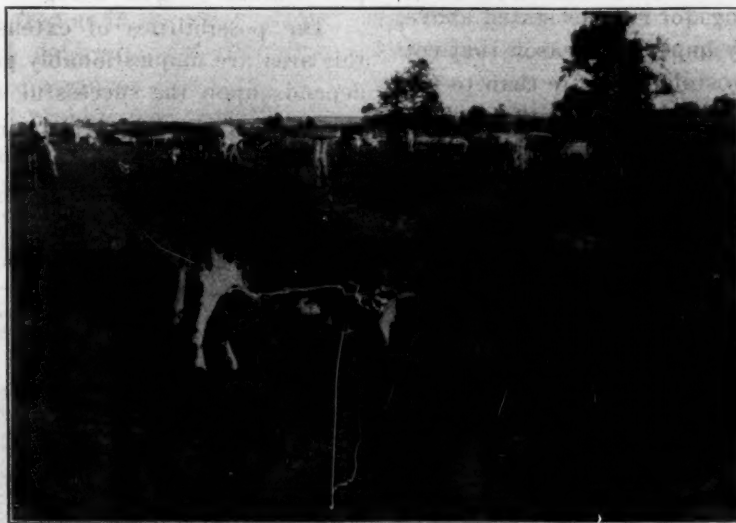
Cotton Belt. The boll weevil is entitled to more credit for the development of the cattle industry of the Southeast than any other single factor. The only way to circumvent his activities is to bring about a system of balanced farming and better farming, in order to keep him guessing as much as possible, and finally to increase the use of stable manure, which will bring the cotton

crop on quicker and enable the grower to mature it before the damage done by the weevil is serious.

As we go still farther toward the seaboard, we get into the Coastal Plain; and here we find another section of the South that is being forced into the cattle business. This great area extends from Norfolk, Va., down the Atlantic coast and across the Gulf coast to Houston, Texas. It is the Piney Woods country, and has been forcing its attention on cattlemen because some profitable

return must be made of the cut-over land after the timber is cut off. The Coastal Plain is the open range of the South; but the title vests with the owners of the land—practically never with the federal government, and rarely with the state governments.

Without discussing the subject, one may say that most of the problems of the open range of the West



NATIVE CATTLE OF SOUTH

Small, Motley-Colored, Cat-Hammed, but Hardy and Making Good Mothers



STARTING UPWARD A GRADE BEEF HERD
South Mississippi Stock Farm. Hereford, Shorthorn, and
Angus Blood May Be Noticed

can be found in the open range of the South, except the factor of ownership; which, of course, puts a very different complexion on the whole situation. Cattle have always run at large in this area, but very little systematic breeding has yet been practiced.

The development of the cattle industry in the Southeast is justified by the necessity for beef production in the United States to keep pace more closely with population, which it has not done during the past twenty years. Many people believe that, broadly speaking, the development of the industry in the Southeast will follow two general lines:

First, cattle-farming will develop in the Cotton Belt as an adjunct to cotton-raising, for reasons stated above, and for the further extremely important reason that cotton responds more quickly to stable manure than to any chemical fertilizer. The investigations of the Animal Husbandry Division during the past fifteen years have worked out the principles of beef production in the South, which indicate that, as a rule, the two most profitable methods of producing beef are to feed cottonseed meal on pasture, or to feed calves for baby beef during the winter following weaning; the ration being made up of available feeds, including silage and cottonseed meal, with corn only when the price will warrant. The enormous extension of the velvet-bean acreage of the South is proving to be a decided stimulus to the cattle industry, and the development of the balanced-farming movement, with rotation of crops, production of forages, etc., and cotton as the money crop, naturally will result in the production of a large quantity of coarse forages which can be utilized to best advantage with steers.

Hand in hand with the cattle-feeding business in the Cotton Belt we find the establishment of herds of pure-bred cattle. Your readers all know what such herds as the La Vernet Farm, Lespedeze Farms, Ames Plantation, Enochs and Wortman, and others have accomplished in the show ring. These herds have shown that it is possible to produce beef cattle with as high a de-

gree of excellence in the South as anywhere else, particularly in the limestone belts, which extend almost to the Gulf of Mexico, and which are found far into the peninsula of Florida.

In the Coastal Plain the most prominent agricultural industry for the next generation will be cattle- and sheep-ranching. A small proportion, possibly not over 20 per cent, of the Coastal Plain will probably be developed for farming purposes during the next twenty-five years; but the cost of developing the remainder for farming is too great at present to be considered, the best prospect for a financial return being in rather extensive ranching undertakings. A market for the feeders will doubtless be available throughout the Cotton Belt, and supplies of breeding stock can readily be obtained from the pure-bred herds in that section.

Anyone who undertakes beef-cattle farming or cattle-ranching in the Southeast in the expectation that he can transplant methods used in the Corn Belt or on the ranches in the West, without more or less decided changes, is doomed to disappointment. Our investigators learned this lesson many years ago, and our investigational work in beef production yielded results only when we threw aside all attempt to adapt northern methods and proceeded to work out the problem along the original lines. The wise cattle ranchman will do the same thing. He will approach this problem with an open mind, adapting himself as far as possible to local conditions and prejudices, and working out his problems as he goes along.

The possibilities of extensive cattle production in this area are unquestionably great, and their realization depends upon the successful solution of five problems:

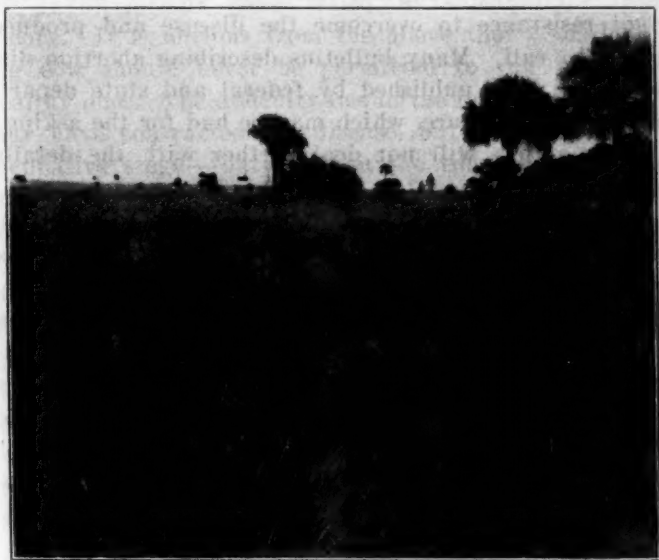
First—Tick eradication is necessary before any great improvement in the common Piney Woods cattle is possible. The successful accomplishment of tick eradication is now regarded as an accepted fact, and its complete realization will be brought about in the next decade, or



TYPICAL FLORIDA PINEY-WOODS PASTURE
Burned Over Annually. Grass Is Mostly Wire Grass, of Little
Value for Grazing

sooner. South Carolina and Mississippi were completely quarantined at the time tick-eradication work began in 1906, and are now entirely released, only a few scattered premises being kept under quarantine. Without tick eradication it is impossible for a ranchman to conduct any large-scale, systematic improvement. Bulls brought in even from the tick-infested ranches of west Texas suffer severely from tick fever when taken into the Southeast, and losses of 50 per cent are known. The reason for this is that the organism which causes Texas fever has different degrees of virulence, just as the malaria organism differs in virulence; the tick organism of the Coastal Plain being more virulent by far than that found on the plains of west Texas. Even if one is able to develop well-bred herds of cattle in spite of the presence of ticks, he suffers from a constant source of loss which makes a serious drain on his profits.

Second—Development of pastures and the solution of winter-maintenance problems, simultaneously with tick eradication, are being worked out, but still require a lot of work. It is my opinion that the first essential is to stop the constant burning of grass. This is a common practice everywhere, and pastures may be burned over several times a year—seldom less than once. The result is that over many sections only those grasses prevail which are fire-resistant, and these grasses are the poorest of all in feeding value. Of course, the succulent grasses of the South do not have the feeding value which the dry, hard grasses of the western plains and mountains produce, although perhaps a given area may produce quite as much actual feed as in the West. Very little work has been done to determine whether it is feasible to keep cattle off certain ranges during the late summer and fall in order to provide winter feed, but there are indications that there are a number of grasses which can be used for this purpose. The winter-maintenance problem does not seem to be any more serious than the same problem on the western ranges, and prob-



A FLORIDA PRAIRIE PROTECTED FROM FIRES



TICK-FREE AND NAPPY
A Scene on Palmyra Island, Mississippi

ably it will cost no more per head for a southern ranchman to provide winter feed than it will in the case of his western brother. As a matter of fact, the cost should be much less.

Third—Only within the last two years has any great amount of attention been paid to the question of financing the cattle industry in the South. The chattel-mortgage laws of most of the southern states have not been framed or administered in such a way that they have proved to be an incentive to the cattle industry, simply because the cattle industry has only recently assumed importance. As a general thing, these laws are defective because of the cumbersome methods of foreclosure, and because of the light penalties inflicted where the mortgagor removes mortgaged property, or otherwise disposes of it, without the consent of the mortgagee. Progress is being made along this line, and at the last session of the legislature in Florida a law was passed which, in the opinion of cattle bankers, removes the principal defects of previous existing legislation. A similar law was introduced in the Georgia legislature, but failed to pass. It is on the calendar, however, and will come up at the next session in 1920.

Brand legislation is also desirable. Except in Mississippi, there is no state registration of brands provided east of Texas. Brands are registered by counties, and duplications are common.

Fourth—The marketing problem is important, but will develop with the industry. Already markets have been established at Jacksonville, Fla.; Moultrie, Ga.; Macon, Ga.; Atlanta, Ga.; Andalusia, Ala.; Montgomery, Ala.; Birmingham, Ala.; Meridian, Miss.; Natchez, Miss., and New Orleans. It is still common, however, to find southern cattlemen shipping to Baltimore, Jersey City, St. Louis, and Fort Worth, on account of the wider markets which prevail at those points.

Fifth—The development of transportation, like the development of markets, will grow with the growth of the industry. Live-stock rates in the South have not yet been systematized. To a very large extent they have,

until very recently, been "paper rates." Efforts are being made, however, to have the Shreveport scale apply generally throughout the southeastern territory, and the railroads of the South have generally pursued a policy of encouragement, not only in regard to rates, but in regard to service as well.

I have made no attempt to present a detailed discussion of the question of grasses, feeds, etc., believing the reader can gain his own impression from the discussion of the problems presented and from the illustrations accompanying this article.

The South has many advantages and some disadvantages as a cattle-growing section. The close proximity to markets is a very important advantage, and the wide range of forage crops has already been men-

tioned. Usually the entire area is well watered. The absence of coyotes is an important advantage. Wild cats are rather common everywhere in the more remote sections, and cause some losses, especially among sheep; and now and then a panther is found. In some sections of the South, such as Florida, screw-worms and ear-ticks are unknown. Mosquitoes are troublesome in many sections, and there are other parasites common to moist, warm climates, which the western ranchman does not have to contend with. These parasites, however, can be controlled by intelligent management and loss prevented.

Generally speaking, it is the writer's opinion that we may expect to see in the Southeast the next great development of the beef-cattle industry in the United States.

Contagious Abortion

BY GEORGE M. POTTER

Manhattan, Kansas

DISEASE furnishes one of the serious handicaps to the production of live stock. In this time of high cost of production and low margin of profit, stockmen must use every measure of conservation available to them to maintain the efficiency of their herds. Contagious Abortion, or, as the writer prefers to call it, "Abortion Disease," has become the most destructive of animal diseases. Abortion disease is a disease of breeding cattle. It destroys the life of the unborn calf; hence it strikes at the very foundation of animal husbandry. It prevents reproduction. Any herd which cannot replenish itself must eventually disappear. The breeding herd is maintained for the production of calves; and if, because of disease, calves cannot be produced, the object of keeping the herd has been destroyed. Fortunately for the cattlemen of the West, the contagious diseases affecting their stock have been few. However, the introduction of abortion disease, and its wide distribution within recent years, have produced a condition which cattlemen as a whole must unite in combating, if the breeding efficiency of their herds is to be preserved.

Abortion disease is contagious because it is a germ disease. The germ which causes it lives and multiplies within the uterus of the pregnant cow. There it sets up a diseased condition of the membranes and destroys the vital contact between mother and offspring. The latter, unable to receive nourishment, dies and is expelled. This disease manifests itself in many ways. Its most common symptom, from which the disease takes its name, is the death and expulsion of the immature calf. But we also frequently have retained after-birth, with or without abortion, sterility, and not infre-

quently an animal continually in heat. The disease has the greatest possible range—from possibly preventing conception, through the entire range of pregnancy, to the living calf. Abortion may occur very early, when the fetus is so small that it is frequently not discovered, and the abortion causes no appreciable disturbance in the health of the cow. In that case the owner thinks that she failed to breed. Most abortions occur at from five to eight months. A calf may come at full term, apparently fully developed, but dead; or a small, weak, sickly calf may be born that later dies from one of the calf ailments. It may often happen that a vigorous calf, apparently normal in every respect, will be born, but there will be evidence that the infection is present. In this case the mother had sufficient resistance to overcome the disease and produce a healthy calf. Many bulletins describing abortion disease have been published by federal and state departments of agriculture, which may be had for the asking; so this article will not deal further with the details of the disease.

Stockmen as a whole do not appreciate the menace to the industry which this disease presents. There has been much misinformation regarding abortion disease, and not only stockmen and dairymen, but veterinarians and scientists, have been much confused. Slowly, however, the truth is being discovered, and with it comes hope that the disease can be overcome. We now have sufficient information to make the attempt to control abortion disease well worth while. There are means at hand which can be adapted to, and are entirely consistent with, the best range practice.

There are a few fundamental principles which, if

once understood and applied, will enable breeders to keep the disease in check.

The first principle is that of protecting the herds against the introduction of disease. Cattlemen sometimes do some very foolish things. About the most foolish of all is to go to the stock-yards and there buy breeding cattle of unknown origin and breeding. The practice of selling herds affected with abortion disease has become quite general. He who depends on picking up breeding cows at the stock-yards is certain, sooner or later, to introduce diseased animals into his herd. The finer-looking the animals offered for sale, the more suspicious one should be. There is usually some reason why they were unloaded, and frequently it is because of abortion. Furthermore, the disease has become so widely disseminated that it behooves the purchaser to be cautious even in his own community. He should observe the percentage of healthy calves in the herd, and inquire whether any have been lost by abortion. If cows or heifers of good breeding, either grades or pure-breds, are purchased directly from reputable breeders, the chances of buying disease will be greatly lessened.

Breeders should be continually on guard to prevent contact between their herds and diseased animals. To guard their herds intelligently, they must know something of the manner in which infection is spread. The discharging cow is the important factor in the dissemination of abortion disease. Following abortion, the cow continues to discharge for a variable time, usually several weeks. This discharge carries enormous numbers of the abortion germs. These contaminate in various ways the food and water of the other cows, and through this channel the susceptible animals contract the disease. Also, cows have been observed to lick up these discharges in the fresh state. It has been claimed for many years that the bull was the chief disseminator of the disease, carrying infection from the diseased cow to the healthy one in the act of breeding; but careful investigations have failed to substantiate that theory. It is obvious from the above that a discharging cow should never be permitted to run with the healthy ones. The difficulty lies in the fact that animals may have contracted the disease, but are still in the incubative stage—that is, from the time the infection enters the body until the symptoms of the disease become apparent. During this stage the animals appear to be perfectly normal. These apparently healthy cows may be placed on the range, later to abort and spread infection. When abortion infection invades a range, only concerted action by those using that range can suppress it. A sentiment must be created that will require diseased herds to be kept under control.

A second principle is that of controlling the infection. In human diseases, such as smallpox, the first thought is to quarantine the patient to prevent the spread of the disease. So, too, in abortion disease. If,

in spite of the precautions of the owner, the disease makes its appearance in the herd, he should, as soon as detected, segregate the affected animals where they cannot convey the infection to the remainder of the herd. This might keep down the loss, which, if uncontrolled, might be expected to run to 50 or 75 per cent of the calf crop. Let not the owner be deceived by the commonly held idea that abortions are the result of accident or the eating of spoiled feed, etc. These things may possibly have an influence, but by far the largest percentage of abortions are due to infection. Treat every case as though of the infectious kind, and be on the safe side. Keep affected animals in quarantine until all discharge has ceased, and then for a few weeks longer to be sure that they are clean, before permitting them to rejoin the herd.

The treatment of aborting animals to hasten recovery, reduce the amount of infectious material, and preserve the reproductive function is a third principle of great importance. Treatment, although not invariably successful, has been quite effective in the hands of competent persons, and many valuable animals have been restored to usefulness that otherwise would have gone to slaughter. Treatment consists of the flushing of the genital organs with mild antiseptic solutions following abortion, to remove shreds of decaying tissue, decomposing fluids, and disease-producing germs, thus permitting the body more quickly to overcome the diseased condition. It is a delicate operation, requiring a knowledge of the anatomy and physiology of the parts and the pathology of the condition. It is evident, therefore, that such treatment should be intrusted to a competent veterinarian. The rough-and-ready style of treatment so often resorted to by persons unacquainted with the conditions has done far more harm than good. It is realized, of course, that large sections of the range country are without competent veterinary service. The large areas of rough land make it impossible to detect all cases, and the wild nature of the cows renders treatment difficult. Other methods, to be referred to later, must be devised for overcoming these difficulties. It should be stated, before leaving this phase of the subject, that cattle living under range or semi-range conditions are less seriously affected by the disease and its complications than dairy cattle living under the unnatural conditions of their environment. Range cattle are just as susceptible, as evidenced by the enormous losses, which sometimes reach 90 per cent of the calf crop; but because of their natural, outdoor life they have greater resistance, which enables them more quickly to overcome the effects of the disease. There is much less of retained afterbirth and sterility, and the proportion of second abortions is very low. These facts afford much hope to those studying to devise methods of controlling abortion on the range.

The fourth principle which we will consider is that of building up a herd immunity. Nature assists us by

providing some animals with a natural resistance to abortion disease. Some persons will not readily take smallpox. In the same way, certain cows will not readily contract abortion disease. They continue to give birth to healthy calves, year after year, although exposed in the same degree to infection which caused more susceptible animals to abort. This resistance seems often to be transmitted to the offspring. Nature assists us still further by granting immunity to animals that have suffered from the disease. This immunity is quite variable, however. Most cows abort but once, a small percentage a second time, and only occasionally will one abort three times. This immunity seems usually to be permanent, but sometimes may subside and permit reinfection. Cows may abort, receive a partial immunity which permits them to produce one or two healthy calves, and then, if again subjected to infection, abort a second time. Because of the fact that most cows become immune after one abortion, the disease tends to subside in herds that are kept intact. Numerous cases have been reported where there had been very heavy losses, and yet the disease practically disappeared in two years' time, as a result of the cows having become immune.

These facts lead us to believe that the disease can be brought under control, if proper precautions and methods are universally practiced. From the foregoing, it should be evident that valuable animals should not be sacrificed without an attempt to restore them to health. Valuable herds—often the work of a lifetime of constructive work—need not be broken up. Affected animals should be sold for slaughter only. The practice of unloading diseased animals is responsible in large degree for the wide dissemination of the disease. The wise breeder will seek to apply these principles in his operations. He will not unnecessarily introduce new animals, and, should it be necessary to bring in new breeding stock, he will inquire carefully as to their origin and condition of health. He will promptly segregate and treat aborting animals, to restore them to health. Furthermore, he will seek to develop a prolific strain of breeding cattle. The cow that produces a healthy calf each year, in spite of the presence of infection, and the cow that readily becomes immune, will be kept to transmit these tendencies in their offspring. Likewise, cows that are not good producers, or that do not become immune following one abortion, should be culled from the herd, to prevent transmitting those tendencies to any offspring they might eventually have.

It is realized full well that the recommendations made in this article may not seem practicable to many men accustomed to the hard conditions of the range. There are doubtless many places where all of them cannot be carried out. Nevertheless, we cannot change the nature of the disease, and, if we would overcome it, we must meet its requirements. In order to lessen

the difficulties of controlling abortion disease on the range, the writer formulated a plan which was published in Kansas Agricultural Experiment Station Circular No. 69, "Contagious Abortion of Cattle." This plan takes into account the nature of the disease, and also practices in herd management that are in common use. It is based on the control of breeding. Briefly, it is as follows:

A study of conditions showed that many herds are bred for spring calves. If it is desired to have the calves begin coming in April, the bulls are put with the cows on July 1. When sufficient time for breeding the herd has elapsed, the bulls are withdrawn. Experience has shown that most abortions occur at from five to eight months of pregnancy. The abortions then will tend to take place from the latter part of November on into February. At this time the cows are usually on the feeding-grounds, where they are under daily observation. Aborters and those threatening abortion should be promptly removed to a separate inclosure where they can receive appropriate treatment. All cows that are to abort will have aborted and been cleaned up before they go back to the range in the spring. By promptly removing affected animals and destroying aborted calves, membranes, and discharges, the amount of infective material is greatly reduced, and thereby many cows then in calf may be spared an attack of the disease. No discharging cow or chronic buller should be permitted on the range to spread infection.

This plan permits the employment of the principles already outlined, without seriously interfering with present methods of herd management. As in all other plans, intelligence must be used in adapting it to local conditions. Its success will depend on the co-operation of the stockmen using a given range. It is obvious that nothing could be accomplished if half of them attempted to control breeding and the other half refused. Cattle could not be protected against infection if but a few men persisted in turning diseased herds onto the range. Treatment of affected animals is but a rational measure of conservation, while the building of a herd immunity through selection of resistant and prolific cows harmonizes with the best methods of herd improvement. The writer has observed the operation of these principles in connection with his work in Kansas. He is convinced that the plan is not merely a theory, but a workable method of overcoming the physical difficulties inseparable from the grazing of cattle in a broken country.

Abortion disease is not easily overcome, but it will respond to intelligent methods of control. Stockmen have their organizations. Let them use them in a concerted effort to overcome this disease. At present they have the matter in their own hands. If they do not rise to the occasion, then drastic laws for curbing this great scourge must be adopted, and the industry will be unnecessarily hampered.

Flies, Fish, and Live Stock

BY SMITH RILEY

District Forester

FORESTERS should develop an interest in entomology as it relates to flies, or *Diptera*. To this order belong all insects that are properly termed flies. The name *Diptera* is from the Greek words *dis*, "two," and *pteron*, "wing." It was suggested by the fact that the flies are distinguished by a single pair of wings; for no fly has more than two wings, and only a few are wingless. The forester is interested in those flies which breed in the forests and become a factor in the use of the forest lands. Many of the forest flies are a nuisance to those who seek the forests for recreation, and are also a great source of loss in the use of the forest ranges.

In their transformation, flies pass through a complete metamorphosis. The larvæ, or maggots, are usually cylindrical and are footless. Some possess a distinct head; others do not. The pupæ are usually either naked or inclosed in the last larval skin. A few are inclosed in cocoons. This is a large order, both in number of species and in number of individuals. Some are annoying to men.

There are many flies which are a nuisance to those who seek pleasure in the open, and flies are a distinct source of loss in running stock on the open ranges. The stockman and the forester are interested in any means which offers a feasible plan to combat this loss, if only in part.

It is interesting to know that many of these blood-sucking flies have aquatic larvæ. Very common among these are the following:

Mosquitoes

The larvæ of mosquitoes, so far as known, are aquatic, though they may breed wherever there is sufficient moisture in the ground or vegetable matter to develop the larvæ. These develop in abundance in any still water not disturbed by current. The long, slender eggs are laid side by side in boat-shaped masses on the surface of the water. They hatch in a few days, and the larvæ escape from the lower ends into the water. The larvæ are well known, and are commonly called "wigglers"—a name suggested by their wiggling motion as they swim through the water. Breeding areas of mosquitoes cover a wide variety of conditions, and probably only a smaller percentage of such areas have to do with waters which can be made to support fish life. On the other hand, there are range or mountain areas where the only waters available for mosquitoes' breeding are capable of supporting fish life; and keeping such waters well stocked with fish would tend to lessen this pest, as the small fish will prey upon the larvæ.

Midges

In addition to mosquitoes, there are the midgets. This family is more or less mosquito-like in form, and, while only a few can bite, many of the species are aquatic and breed in vast numbers. Midges often appear in large swarms dancing in the air, especially toward the close of day. Professor Williston states that over meadows in the Rocky Mountains he has seen them rise at nightfall in the most incredible numbers, producing a buzzing or humming noise like that of a distant waterfall, and audible for a considerable distance. Many of this species belong to the genus *Chironomus*. These are mosquito-like in form, but vary greatly in size, some being smaller than our common mosquitoes, but others much larger. The larvæ, so far as they are known, are aquatic. Many of them are blood-red in color, and, as they live in standing water, they are sometimes found in vessels containing rain-water, where they appear like bits of animated red thread.

Black Flies

In this family the body is short and stout; the legs are short, and the tibiæ are without spurs; the wings are broad, iridescent, and not clothed with hairs. The females of many species suck blood and are well-known pests. Unlike mosquitoes and midges, the black flies like heat and strong light. They are often seen in large numbers, disporting themselves in the brightest sunshine. The larvæ are aquatic, and usually live in swift-flowing streams, clinging to the surface of rocks in rapids or on the brinks of falls. They sometimes occur in such large numbers as to form a moss-like coating over the rocks. When full-grown, the larva spins a boot-shaped cocoon, within which the pupa state is passed. This cocoon is firmly fastened to the rock on which the larva has lived, or to other cocoons; for they occur in dense masses, forming a carpet-like covering on the rocks. We have often watched the flies hovering over the brink of a fall where there was a thin sheet of swiftly flowing water, and have seen them dart into the water and out again. At such times we have found the surface of the rocks more or less thickly coated with eggs, and have no doubt that an egg is fastened to the rock each time the fly darts into the water. This family includes those blood-sucking flies and gnats so commonly found in clusters in range stock's ears, across the breast, or in patches on the back. As this fly is extensively distributed, is of so many species, and has swift water larvæ, it will be seen how beneficial to range conditions the complete stocking of all fish waters would be in eliminating losses caused by the activity of this pest.

Horseflies

Horseflies are well-known pests, and are often extremely annoying to both man and stock. They appear in summer, are common over the wooded ranges, and are most abundant in the hottest weather. The flight of these flies is very powerful. They are able to outstrip the swiftest horse. The males, as is the habit of many other flies, feed on the nectar of flowers and on sweet sap. The females are noted for piercing the skin and sucking the blood of men and quadrupeds. The females also feed on the sweets of plants when they cannot obtain blood. The larvæ are carnivorous; some live in the earth, and many are aquatic. They feed on various small animals—some upon snails, others on the larvæ of insects. The largest species, as well as some of the moderate sizes, belong to the genus *Tabanus*, of which nearly one hundred American species are known. The larvæ of many of the horseflies are commonly found in the soft, oozy soil along the still waters of live streams, and are available to fish in changing their positions in search of food or in periods of transformation. Undoubtedly a great deal of the rich, moist soil formed by decomposed vegetable matter that is found in the low areas throughout the timbered region constitutes the breeding-place for these flies, so that the live-water areas are really only a portion of the areas where the flies are bred. However, the live-water areas, particularly throughout the open range region, constitute a big percentage of the culture areas of these flies. Particularly would this be so in this type. To the genus *Chrysops* belong the smaller, more common horseflies with banded wings and parti-colored heads. Nearly fifty American species of this genus have been described.

Other Flies

The soldier-flies, which are so called on account of the bright-colored stripes with which some of the species are marked, are blood-sucking, have aquatic larvæ, and are found on flowers and leaves, especially in the vicinity of water and in bogs and marshes.

There are also the snipe-flies—so called for their rather long legs. These flies are predaceous. They may be found about low bushes and tall grass. They are small, sluggish, and, therefore, easily caught. The larvæ are predaceous. Some live in the earth, while others live in moss or in water, and are undoubtedly preyed upon by fish.

A description of these several families gives a distinct idea of the benefits to be derived from keeping all waters throughout the forest ranges, capable of supporting fish, fully stocked. Such action would result in benefits to many. Therefore the necessary work of stream-stocking should be widely supported. That the stock industry and the small associations organized for the purpose of using national forest range should support this work goes without saying.

FROM THE MARKET COMMITTEE

DENVER, COLO., November 2, 1919.

To Members of the American National Live Stock Association:

The hearings on the Kendrick-Kenyon bills before the Senate Committee on Agriculture and Forestry began August 18 and continued until September 13. The packers and their supporters monopolized the time until September 12, when the representatives of the producers were called, and for two days testified in favor of the bills.

How successfully they were able to controvert the avalanche of testimony with which the packers had attempted to overwhelm the committee may be learned by careful reading of the pamphlet which will be sent to each member of the American National Live Stock Association. This pamphlet contains the testimony of the following men: E. L. Burke, of Omaha, Neb.; I. T. Pryor, of San Antonio, Tex., and H. C. Wallace, of Des Moines, Iowa—all representing the American National Live Stock Association. Mr. Wallace likewise appeared for the Corn Belt Meat Producers of Iowa. C. H. Gustafson, of Omaha, represented the Farmers' Union of Nebraska; C. W. Pugsley, of Lincoln, Neb., nearly all the large Nebraska live-stock organizations; John Grat-tan, of Broomfield, Colo., the Farmers' Union of Colorado; and L. C. Brite, of Marfa, Tex., the Panhandle and Southwestern Stockmen's Association.

It was the particular job of these men to demonstrate to the committee that the real sentiment of the great majority of producers is in favor of legislation regulating the packers and certain allied industries. Those opposed to the legislation during the summer of 1919 staged a campaign of dishonesty and intimidation the like of which has never been known in the legislative history of the country. By sheer force of numbers and an avalanche of words, both oral and printed, the attempt was made by the packers to overwhelm those favoring the bills. Many producers were swept along with the current. They accepted as true what was told them, instead of carefully studying the bills for themselves and forming an independent judgment.

The packers overplayed their hand, and thus helped bring about a reaction. As soon as the people realized that the Kendrick-Kenyon bills meant nothing but publicity, reasonable regulation, and a chance for competition to operate on equal terms, the sentiment changed. The turn of the tide was in September, and it now seems to be running strongly in favor of meat-packing legislation.

The recent tremendous fluctuations in the market have helped to convince producers that the time has come to establish an impartial agency which will protect them from the powerful group ruling the markets for live stock and its products—an agency whose duty it shall be, not only to furnish an authoritative expla-

nation for these tremendous swings in the markets, but also to find a remedy.

The hearings before the agricultural committee of both House and Senate will probably be resumed very soon after the Peace Treaty is disposed of, so both sides will be given every opportunity to be heard.

Those opposed to the pending legislation may again send a large force to Washington. They have the organization and the means to do so; while, on the other hand, the producers have but few means and a less efficient organization. It therefore is highly important that the producers should make known their position to their representatives in Congress by promptly sending them letters. It is not so important that an unqualified indorsement of either the Kendrick or the Kenyon bill be given. There undoubtedly are points in each of these bills of which a large number of producers do not entirely approve. This, however, should not deter them from writing strong letters to their congressional representatives, urging the passage of legislation regulating the packer monopoly, the stock-yards, and commission men.

Many of our representatives in Washington have been misled into believing that live-stock producers as a class are not in favor of regulatory legislation. It is the duty of producers promptly to correct that wrong impression.

MARKET COMMITTEE OF THE AMERICAN NATIONAL LIVE STOCK ASSOCIATION:

H. A. JASTRO,
Chairman;
E. L. BURKE,
Vice-Chairman.

SOUTHWEST MAKES RECOMMENDATIONS FOR RAILROAD LEGISLATION

ON SEPTEMBER 8 a joint committee was appointed by the Texas Industrial Traffic League and the Southwestern Industrial Traffic League, the latter representing the commercial and industrial organizations of Texas, Oklahoma, Arkansas, and Louisiana, for the purpose of studying the provisions of the proposed federal railroad legislation, especially the pending Esch-Pomerene and Cummins bills, and making suggestions for the enactment of proper laws by Congress. After considering the report submitted by that committee, it was decided to express as the sentiment of the interests named:

1. That the railroads should be returned to the corporations for all purposes as they were when taken over by the national government on December 28, 1917, with the relations between the roads and the public in all respects restored as they existed prior to that date;

2. That the respective jurisdictions of state and federal governments, as defined by the Constitution, should be maintained;

3. That the jurisdiction of the Interstate Commerce Commission, under the doctrine of the Shreveport case, should not

be extended beyond the correction of specific cases of discrimination, such cases to be settled through harmonious co-operation between that commission and the various state commissions;

4. That, while employees are entitled to a liberal wage, they have no inherent right to share in the profits of industry;

5. That the consolidation of railroads should not be left to the discretion of any board, and should be undertaken only in the case of non-competing lines, when such consolidation is clearly in the interest of more efficient service;

6. That the plan of dividing the country into districts for rate-making purposes should be discouraged;

7. That federal incorporation of railroads would be in violation of the Constitution, and would deprive the states of control over roads organized under state charters;

8. That the creation of a Railway Transportation Board should be opposed, as interfering with the functions of the Interstate Commerce Commission;

9. That the control of that commission over water rates should not be extended;

10. That a fund should be provided by the national government for long-time loans at low rates of interest to meritorious enterprises for the purpose of constructing, extending, or improving transportation lines;

11. That no form of guaranty of earnings should be made to common carriers under any system of private ownership and operation;

12. That a tribunal should be created with power to hear and determine disputes between railroads and their employees, its findings to be final and binding upon both parties, and laws should be enacted making conspiracy against transportation in interstate commerce a felony;

13. That section 4 of the Act to Regulate Commerce, commonly known as the "Long and Short Haul Clause," should not be amended;

14. That power to make minimum rates should not be granted to the Interstate Commerce Commission, as tending to destroy competition.

These recommendations, which may be taken to represent the views of the American National Live Stock Association and of the organized live-stock interests of the West, are signed by C. D. Mowen and F. A. Leffingwell, president and secretary, respectively, of the Southwestern Industrial Traffic League, and J. A. Morgan and H. S. L'Hommedieu, president and secretary of the Texas Industrial Traffic League. S. H. Cowan, attorney for the American National Live Stock Association, was chairman of the joint committee.

THE CALENDAR

November 17-22, 1919—Pacific International Live-Stock Exposition, Portland, Ore.

November 17-22, 1919—American Royal Live-Stock Show, Kansas City, Mo.

November 29-December 6, 1919—International Live-Stock Exposition, Chicago, Ill.

January 17-24, 1920—National Western Stock Show, Denver, Colo.

January 19-21, 1920—Annual Convention of National Wool-Growers' Association, Salt Lake City, Utah.

January 27-29, 1920—Twenty-third Annual Convention of American National Live-Stock Association, Spokane, Wash.

January 29-31, 1920—Annual Convention of Kansas Live-Stock Association, Wichita, Kan., in connection with Kansas National Live-Stock Show.

March 10-15, 1920—Southwestern Exposition and Fat-Stock Show, Fort Worth, Tex.

March 16-18, 1920—Forty-fourth Annual Convention of Cattle-Raisers' Association of Texas, Houston, Tex.

HOW TO TELL CATTLE'S AGE BY TEETH

THE AGE OF CATTLE can be approximated closely by the appearance, development, and subsequent wear of their second incisor teeth, according to "Farmers' Bulletin 1066," issued by the Department of Agriculture.



Internal face of incisors of the calf.



Internal face of incisors at 2 years.



Internal face of incisors at 3 years.



Internal face of incisors at 4 years.



Internal face of incisors at 5 years.



Internal face of incisors at 12 years.

Cattle have eight incisor teeth, all in the lower jaw. In the calf at birth two or more of the temporary or first incisor teeth are present. With the first month the entire eight incisors have appeared. Each of six stages in the development of the teeth is shown in the accompanying illustrations, which will be very helpful to the person desirous of becoming proficient in judging the age of cattle.

As the animal approaches two years of age, the center pair of temporary incisor teeth, or pinchers, are replaced by the permanent pinchers, which at two years attain full development.

At from two and a half to three years the permanent first intermediates are cut, and are usually fully developed at three years.

At three and a half years the second intermediates, or laterals, are cut. They are on a level with the first intermediates, and begin to wear at four years.

At four and a half to five years the corner teeth are replaced, the animal at five years having the full complement of incisors, with the corners fully developed.

At five to six years there is a leveling of the permanent pinchers. These pinchers usually are leveled at six, both pairs of intermediates partially leveled, and the corner incisors showing wear.

From seven to eight the pinchers are noticeably worn, from eight to nine the middle pairs, and by ten years the corner teeth.

After six years the arch gradually loses its rounded contour, and becomes nearly straight by the twelfth year. In the meantime the teeth have become triangular in shape, distinctly separated, and show the progressive wearing to stubs.

STATEMENT OF OWNERSHIP, MANAGEMENT, ETC.

REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912 OF

THE PRODUCER

PUBLISHED MONTHLY AT DENVER, COLO.
FOR OCTOBER 1, 1919

STATE OF COLORADO, ss.
COUNTY OF DENVER, ss.

Before me, a Notary Public in and for the state and county aforesaid, personally appeared T. W. Tomlinson, who, having been duly sworn according to law, deposes and says that he is the Managing Editor of THE PRODUCER, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:
Publisher—American National Live Stock Association Publishing Company, 515 Cooper Building, Denver, Colo.
Associate Editor—Louis Warming, 515 Cooper Building, Denver, Colo.
Managing Editor—T. W. Tomlinson, 515 Cooper Building, Denver, Colo.
Business Manager—T. W. Tomlinson, 515 Cooper Building, Denver, Colo.

2. That the owners are:
American National Live Stock Association Publishing Company, 515 Cooper Building, Denver, Colo.
Stockholders:

American National Live Stock Association;
Cattle and Horse Raisers' Association of Oregon.
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:

There are none.
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security-holders, if any, contain not only the list of stockholders and security-holders as they appear upon the books of the company, but also, in cases where the stockholder or security-holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security-holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona-fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

T. W. TOMLINSON, Business Manager.
Sworn to and subscribed before me this first day of October, 1919.

[Seal.] LELA L. RHOADES,
Notary Public.

(My commission expires October 3, 1922.)

There can be no doubt of the willingness of Congress to investigate the cost of living; but can the consumer survive the long years before a report is made?—*Baltimore American*.

THE PRODUCER

PUBLISHED MONTHLY

IN THE INTERESTS OF THE

LIVE-STOCK INDUSTRY OF THE UNITED STATES

BY THE

AMERICAN NATIONAL LIVE STOCK ASSOCIATION
PUBLISHING COMPANY

515 COOPER BUILDING, DENVER, COLORADO

Officers and Directors

JOHN B. KENDRICK, President

HENRY A. JASTRO, Vice-President

IKE T. PRYOR

DWIGHT B. HEARD

T. W. TOMLINSON, Managing Editor

LOUIS WARMING, Associate Editor

Subscription: One Dollar a Year :: Advertising Rates on Request

Volume I

NOVEMBER, 1919

Number 6

CALL FOR CONVENTION

DENVER, COLO., November 5, 1919.

To Members of the American National Live Stock Association:

At the Twenty-second Annual Convention of the American National Live Stock Association, held in Denver, January 21-23, 1919, authority to select the next place and date of meeting was unanimously delegated to the Executive Committee.

Invitations were received from Spokane, Wash.; Albuquerque, N. M.; Kansas City, Mo.; El Paso, Tex., and St. Louis, Mo.

The claims of these different cities and the suggested dates for the meeting were submitted to the Executive Committee. The votes of the majority of that committee favored Spokane, Wash., for the place of meeting and January 27, 28, and 29, 1920, for the date.

Accordingly, call is hereby issued for the Twenty-third Annual Convention of the American National Live Stock Association to be held in the Assembly Room of the Davenport Hotel, Spokane, Wash., on January 27, 28, and 29, 1920; sessions commencing at 10 o'clock A. M. on Tuesday, January 27.

All stockmen are cordially invited to attend.

J. B. KENDRICK,

President.

T. W. TOMLINSON,

Secretary.

GENERAL BUSINESS OUTLOOK

A REVIEW of business conditions is hardly more than a recital of strikes and more strikes. The conclusion of one conflict is immediately followed by fresh troubles in other quarters. The steel-workers have apparently lost their strike, as production in that industry is said to be about 80 per cent of normal. On November first the coal strike started on schedule time, despite the government injunction. It bids fair, however, to be settled before this issue of THE PRODUCER reaches our readers. The dock-workers' strike in the eastern harbors is nearing an end.

The disorganization resulting from these interminable labor controversies not only seriously restricts production and depletes the already meager stocks of many manufactured commodities, but it tremendously diminishes the purchasing power of thousands of workers in the affected sections. Evidences of contraction in retail trade are plainly noticeable in those localities.

In other sections of the country not directly affected the general merchandise trade is reported to be as brisk as ever, and many staples are getting scarcer.

The production of steel during the strike crisis fell off about 40 per cent. It is now steadily increasing, and price advances are under consideration. Cotton prices have reached a new high level—around thirty-six cents—largely on account of floods in the South injuring the cotton crop, and of the reduction in the government estimate of the total crop. Cottonseed cake and meal have advanced. There has been a slight lowering in the price level of food products within the last month.

Corn prices were almost stationary during October. On the last day of the month a sharp advance was recorded, which was continued during the opening days of November, caused largely by car shortage and unsatisfactory weather conditions for gathering the crop.

The permit system governing the movement of grain from the interior to large terminal markets has gone into effect and is causing some confusion. Cars are scarce throughout the leading grain states, and the Railroad Administration has ordered all available box-cars on eastern and western roads sent west of the Missouri River to move wheat that is on the ground. The car situation is particularly bad in Kansas, where some wheat is spoiling. The total railroad traffic is heavier than that of last year.

Prices for hides and wool remained practically unchanged. Hogs had a severe drop to the twelve-cent level late in October, and then sharply reacted about three cents. No important changes occurred in the prices of cattle, sheep, and lambs.

Foreign exchange rates are still demoralized and low. They are the main deterrent against exports. There were no marked changes in values of standard securities on the New York stock market during the past month. Money rates are unaltered.

THE LABOR-FARMER CONFERENCE

PRESIDENT GOMPERS, of the American Federation of Labor, announced on October 25 that a conference of the international unions, the railroad brotherhoods, and the farmers' organizations would be held in Washington on December 13. This announcement was made following a meeting in which representatives of the American Federation of Labor, the railroad brotherhoods, and four farmers' organizations participated. The farmers' organizations said to be represented were the International Board of Farm Organizations, the Federation of Milk Producers, the American Society of Equity, and the Farmers' Co-operative Union.

The purpose of the conference, according to the statement in the press, is "to determine upon a joint course of action relative to legislation in Congress. The chief negative object at this time is to defeat the Cummins railroad bill, which, on account of its anti-strike clause, is regarded by labor as the most vicious piece of pending legislation."

Basically the interests of all workers should be identical—namely, to secure a just and fair reward for their labor. But the viewpoint of the farmer as to the proper method of accomplishing that result is, we believe, diametrically opposed to the strike tactics of the labor unions. Farmers generally will favor the anti-strike clause of the Cummins bill, with the provision for arbitration of wage differences. The proposed conference will split on that issue. A majority of the farmers will oppose the Plumb plan for nationalizing the railroads, so strongly advocated by the railroad brotherhoods. So there will be a clash on that proposition. We might go on and enumerate other points of divergence between what we understand to be the farmers' attitude and what is obviously the policy of many of the labor leaders, judged by their recent utterances and actions.

However, we do not oppose that conference; on the contrary, we sincerely hope it will be held, and that it will be well attended by the foremost representatives of the farmers. An exchange of ideas is always beneficial, and the educational advantages of such a discussion cannot be overestimated. It may temper radicalism, and pave the way for sane and constructive remedies. The conference cannot terminate any more ingloriously than the National Industrial Conference held in Washington last month, which, after a three weeks' session, adjourned without any tangible results.

Significant of the attitude of the tillers of the soil was the action of the Farmers' National Congress which closed its annual meeting at Hagerstown, Md., on October 30, by going on record as opposed to all strikes. The short workday and the "ever-increasing wages demanded by industrial labor" were declared to be "allies of the profiteer in keeping up the high cost of living." "We know that the forty-four-hour week cannot feed the world, and we proclaim that it cannot clothe it," the

resolution further declared. Those who advocate the short day in industry, the resolution added, should not expect the farmer to work "six hours before dinner and six hours after, with before-breakfast and after-supper chores thrown in." The congress favored a federal board of arbitration that would give both capital and labor a "square deal."

We do not believe that either organized labor or capital understands the producer's problem. They are ignorant of, or give scant consideration to, the fact that the net returns to the average farmer on his capital invested are vastly below the standard returns sought by capital, and that the amount received for the farmer's labor is generally ridiculously lower than the wages in the majority of industrial centers. To a greater extent neither organized labor nor capital knows the problems of the live-stock raiser. And if the conference results in a better appreciation by organized labor of even part of the producer's problems and difficulties, as well as his national viewpoint, it will have accomplished much good. Knowledge of that character relative to the great agricultural and live-stock producing interests is essential to a just understanding of our whole industrial fabric; and with it should come a tolerance which unfortunately has been totally absent in the contentions between capital and labor.

The producers of raw food products are not profiteers and have never been. What they have received for their labor and investment during these abnormal times will represent a smaller net return than that earned in any other industry. For the past few months many stockmen have suffered tremendous losses—particularly since the drive to reduce the cost of living. But capital and labor seem to be unmindful of any losses or hardships to others than themselves.

There can be no sound objection to collective bargaining through properly chosen representatives. If it is good for one industry, it should be good for all others. But when employers and employees deadlock, there must be some other solution than strikes or lockouts. Ours is a government, not of one class, but for all. It is, or should be, the function of government to settle these disputes, and it can be done only through arbitration. The general public has as great an interest in these industrial controversies as the parties directly concerned. Indeed, its interest should be paramount. Its forbearance and patience are being sorely tried in these troublesome times; and it has become excessively weary of this continual industrial warfare, with its trail of suffering, reduced production, and higher prices. A storm is brewing which bodes ill for labor organizations both good and bad, and for the fair and unfair employers.

Since the policemen's strike in Boston that method of securing what strikers think they are entitled to has lost much ground. The public is dead set against a labor autocracy or soviet. This is a government of all the people, and labor leaders must sooner or later recog-

nize that principle. A successful strike does not definitely settle an industrial controversy, and never will. Only an enlightened public conscience, projected through an impartial arbitration tribunal, can permanently secure any semblance of industrial peace.

"WHAT'S THE MATTER WITH KANSAS?"

THE EDITOR of the *Kansas Stockman* is "seeing things." His fertile brain has conjured up the absurd idea that an organized effort is being made by some stockmen living outside of Kansas to disrupt the Kansas Live Stock Association. In the November 1 issue of his magazine is a leading editorial, part of which we quote:

For nearly a year past certain officers and members of the executive committee of the American National Live Stock Association have devoted a considerable portion of their time to belittling the activities of the Kansas Live Stock Association. . . . The new publication of the American National, THE PRODUCER, has ever since its inception been the medium for circulating the poisonous utterances of these men, whose fondest desire seems to be to wreck the Kansas Live Stock Association.

We are wholly at a loss to understand what the writer of this editorial is driving at. Possibly he refers to a sentence in the market letter of one of our special correspondents which appeared on page 29 of the October number of THE PRODUCER, with reference to the trip of the Kansas stockmen to Chicago and Washington, as follows:

There is a strong suspicion that the object of the leaders of this committee was to befuddle producing interests and divert attention from the Kendrick-Kenyon bills.

The writer of that article is a market reporter, daily on the Kansas City market. In the line of his work he probably heard the gossip, which has been prevalent around those yards for some time, that certain of the leading spirits in the Kansas Live Stock Association were not correctly representing the real attitude of the majority of Kansas stockmen on the pending meat-packing legislation. As to the correctness of that rumor we do not pretend to know; it was bruited about, and was sent in as a matter of news.

We have carefully gone through the five issues of THE PRODUCER, from June to October, and cannot find therein one single phrase which by the widest stretch of the imagination could be construed as "belittling the activities of the Kansas Live Stock Association," or which could be interpreted as "poisonous utterances" intended to wreck that association. We are therefore constrained to believe that there must be some other motive, or animus, or pique, which prompted the editorial in the *Kansas Stockman*. We can only guess. Will the editor of the *Stockman* kindly point out some of the "poisonous utterances" to which he objects?

The American National Live Stock Association is composed of many local and state live-stock organizations.

The rule of the majority prevails in all its actions. Since January, 1916, this association has favored some intelligent, constructive meat-packing legislation. The special work toward that end has been intrusted to its Market Committee, whose untiring efforts have been indorsed by the association at all its annual conventions since then. Every constituent association has a voice in these policies. The Kansas Live Stock Association has been a valued member of the American National Live Stock Association for many years; so has the Corn Belt Meat Producers' Association, of which H. C. Wallace is secretary. Both of these organizations had a voice in framing the action and policy of the national association.

While action on this meat-packing legislation has been unanimous at the conventions of the national association, there is no doubt that some of our members entertain views differing somewhat from those of the majority as to the exact character of the legislation which should be enacted. That is not unusual in any organization. On the contrary, it would be a miracle if everyone absolutely agreed. A world without differences of opinion would hardly be worth living in.

The editor of the *Kansas Stockman* apparently represents the "activities of the Burke-Wallace obstructionist element," as he terms it. Both Mr. Burke and Mr. Wallace are members of the Market Committee of the national association, along with Mr. Jastro, Mr. Pryor, and Mr. Heard, to whom the *Stockman* refers with approval. The Market Committee has been unanimous in all its actions and policies.

We are glad that the Kansas Live Stock Association has developed into such a strong, virile, aggressive, and constructive organization. There is plenty of work for all the various state and local live-stock organizations, and for the national association as well; but there is no time or excuse for petty bickerings.

THE OVERCHARGE-IN-FEED-BILLS CASE

AT CHICAGO, on October 20, Judge Sanborn, of the United States Circuit Court, granted a permanent injunction restraining the Secretary of Agriculture from revoking the licenses of six live-stock commission firms which had refused to adjust some accumulated overcharges in their feed accounts. The secretary had served notice on these firms that, unless they made restitution of the overcharges to their shippers, their licenses would be suspended or revoked, as the circumstances might warrant. The six firms involved secured a temporary injunction, which has now been made permanent. The court decided that the secretary was without legal authority under the Food Control Act to enforce restitution of funds, and consequently had no legal power to revoke licenses for refusal to make such restitution. As we understand it, the merits of the case were not gone into, as the decision turned on

the technical point as to whether the secretary had authority to compel the correction of a past abuse.

As the matter now stands, hereafter, if any violations occur of the rules and regulations under which the commission firms are licensed, they must be notified by the Secretary of Agriculture to discontinue them, and, if within a reasonable time they do not comply, their licenses may be revoked.

The Food Control Act will soon be a matter of history; it expires by limitation when the President issues his proclamation stating that the war with Germany has terminated. The licensing of commission firms is one of the provisions of the meat-packing legislation now pending in Congress.

SENATOR WATSON'S CHARGES

IN THE UNITED STATES SENATE, on October 20, James E. Watson, senator from Indiana, introduced the following resolution (S. Res. 217), which was read and referred to the Committee to Audit and Control the Contingent Expenses of the Senate:

WHEREAS, There is reason to believe that a number of the employees of the Federal Trade Commission have been, and now are, engaged in socialistic propaganda and in furthering the organization and growth of socialistic organizations; and

WHEREAS, If Bolshevism, with all that it implies, is to be met and overcome in our country, it must be done by first ousting all its adherents and advocates from public office; therefore be it

Resolved in the Senate of the United States, That the Committee on Interstate Commerce of the Senate is hereby authorized and directed, by subcommittee or otherwise, to inquire into and report to the Senate at the earliest practical date upon the truthfulness of these charges; that said committee may conduct such inquiry by subcommittee or otherwise, and shall be empowered to hold sessions during the recess of the Senate; and for this purpose the committee or any subcommittee thereof is empowered to send for persons and papers, to employ whatever assistance, either clerical or legal, they deem necessary to aid in conducting the investigation, to administer oaths, to summon and compel the attendance of witnesses, to conduct hearings and have reports of the same printed for use; and any expense in connection with such inquiry shall be paid out of the contingent fund of the Senate upon vouchers to be approved by the chairman of the committee.

In presenting the resolution, Senator Watson specifically referred to eleven employees of the Federal Trade Commission who were engaged in the investigation of the meat-packing industry as guilty of "socialistic propaganda." In the senator's vocabulary the word "socialistic" evidently is synonymous with "anarchistic" or "Bolshevist."

The Federal Trade Commission, in a formal statement issued on October 22, asserted that the charges made by Senator Watson were "part and parcel of the warfare of the Chicago meat-packers against the Department of Justice and the Federal Trade Commission, with the purpose of subverting justice." The commission further declared that its members and employees

had long been subject to an attack "that the public has never known about;" that while it was investigating the meat-packers the government's representatives were trailed by detectives, and that the commission's offices were entered surreptitiously. The commission "challenges the proof" of the charges, and "with the proof their source and the means by which they were formulated."

Ever since the United States Chamber of Commerce launched its attack on the Federal Trade Commission on August 14, 1918 (shortly after the report of that commission on the meat-packing industry), it has been a favorite pastime for financial interests, commercial organizations, and trade bodies to criticize and lambast the commission. There has been no closed season on these attacks. A defeated party in a lawsuit generally accuses the judge and the jury.

If Senator Watson's implications are true, the offending employees should be promptly discharged. If they are false, the public should be given that information as promptly as possible. We hope that some members of the United States Senate will insist upon a prompt and thorough investigation.

MR. ARMOUR AS A PROPHET

A PAMPHLET published by Armour & Co. early in the year, over the name of J. Ogden Armour, entitled "The Live-Stock Producer and Armour," purports to contain a general review of the live-stock situation, and is filled with advice to stockmen. We quote from it as follows:

Yet millions more of hogs are needed. The world is deficient in fat products, and hogs provide the means of quick expansion. They likewise furnish food in a concentrated form, and thus conserve valuable shipping space.

There is every incentive for farmers and stockmen to grow more live stock. It will be a long time before production equals demand.

For many years to come America will play a large part in feeding the world. France, Belgium, and other war-devastated countries can quickly catch up on grain production, but it will take a decade or more to build up the shortage of meat-animals.

This is a time when breeding herds should be kept intact. . . . The future was never brighter for American producers.

The Armour pamphlet was sent broadcast throughout the country. The prominence of Mr. Armour in the meat-packing industry and in the business and banking world entitles his opinion to great weight. His advice to raise more stock was widely quoted, and probably widely followed.

Within a few short months, however, Mr. Armour's opinion radically changed. In August he was quoted, in an interview at St. Paul, Minn., to the effect that all farm products and live stock were bound to sell lower on account of liberal supplies.

As the supply of live stock in this county was no greater in August than it was earlier in the year when

Mr. Armour issued his comprehensive review, it is quite evident that his advice to raise more live stock did not turn out to be in the interest of the stock-raiser.

In September a committee of forty-five representative stockmen from Kansas made a trip to Chicago and Washington. En route they conferred with Mr. Armour and other packers at Chicago, both on the outbound and return journey. At the last conference Mr. Armour is reported to have told the committee, among other things, according to an article in the *Kansas City Star* of October 10:

You will be back here in three months crying your eyes out over the price of hogs; for hogs are going down. They are going to take a tumble that will make you gasp. They are going lower than the packers want to see them go even, and you Kansas stockmen will be begging us for help.

In a report of the happenings at the same conference, sent out over the signature of John A. Edwards, of Eureka, Kan., the following statement appears, which confirms the accuracy of the foregoing extract:

But Mr. Armour said at this meeting that hogs would be lower—much lower—before January; so low that we would cry and be back. He said that he hoped they wouldn't go so low as he feared; that cheap hogs were unprofitable; that reasonably priced hogs were remunerative.

Apparently Mr. Armour had no regrets that he had urged greater production of hogs. He promised no relief or assistance; he did not even offer sympathy for the impending tumble which he predicted. The only reason he did not want hogs to get so very "cheap" was because they were less profitable. Of course, it is barely possible that Mr. Armour may be as far wrong in his last prophecy as he was when he said, earlier in the year, that millions more of hogs were needed.

At the National Grain Dealers' annual convention in St. Louis last month a letter was read from Mr. Armour, from which we quote:

There is no simpler way of increasing the buying power of the dollar than by increasing production. There is no alternative that will succeed. Buying power and credit have outstripped the yields of our farms and industries. I hear rumors that some farmers are considering the advisability of cutting down their output, and I regard such proposals with the greatest misgivings.

Mr. Armour's misgivings are well founded. This time he is right. Neither farmers nor stockmen will continue to produce at a loss.

INTERNATIONAL TRADE CONFERENCE

AT THE INTERNATIONAL TRADE CONFERENCE at Atlantic City last month were fifty representatives of the great industrial and commercial interests of France, Italy, Belgium, and the United Kingdom, with about one hundred representing the United States. One of the developments of the conference was the creation of a permanent international organization to cultivate better relations among nations, especially members of the League of Nations, in recogni-

tion of the fact that misunderstandings arising over trade questions have in all ages been a potent cause of wars. The conference realized that there must be complete reciprocity, with equal privilege and opportunity.

At present international commerce is being conducted under most abnormal conditions, owing to the depreciation in foreign exchange and the high ocean shipping charges. From the discussion at Atlantic City it is evident that all parties agreed it was necessary to increase imports into the United States in order to bring about equilibrium in exchange rates. In previous issues THE PRODUCER has pointed out this inexorable fact.

NEW RULES TO GOVERN SHIPMENTS OF LIVE STOCK

ON MAY 10, 1919, the Division of Traffic of the United States Railroad Administration issued certain tentative rules and regulations governing the handling and transportation of live stock. These had been prepared by a special committee, of which James L. Harris was chairman, after exhaustive investigation and lengthy hearings at which all interested were given an opportunity to present their views, and were submitted to the various traffic committees and shipping organizations for further suggestions or criticisms. A summary of these rules and regulations was published on page 35 of the June PRODUCER.

The Railroad Administration has just issued its Freight Rate Authority No. 15,766, dated October 16, authorizing the carriers under federal control to put into effect the finally approved rules and regulations as soon as they can be published. The only important modification in the rules as announced on May 10 is the elimination of the clause prohibiting the protection of the through rate on shipments of live stock which has changed ownership at the market. This elimination was made at the earnest request of the Denver Union Stock Yards Company and the Denver Live Stock Exchange, for the purpose of maintaining that market on a rate parity with the Missouri River points. The necessity for this action arose from the fact that the rates on live stock into and out of Denver were unreasonably adjusted, compared with the Missouri River; and the continuance of the old basis of protecting the through rate regardless of change in ownership or substitution at Denver measurably corrects that inequality. This disability was fully discussed in an article on page 25 of the July PRODUCER. The Denver interests are to be congratulated on the outcome of their efforts to protect the local market.

Heretofore different sections had varying rules governing the transportation of live stock. The rules are now made uniform throughout the country.

CROP ESTIMATES FOR OCTOBER 1

THE FOLLOWING SUMMARY of crop estimates for October 1, 1919, together with the changes since September 1, has been made public by the Department of Agriculture. Except in the case of hay, quantities are in bushels:

	Oct. 1 Indications	Increase or Decrease Since Sept. 1
Corn.....	2,900,511,000	+42,819,000
Winter wheat.....	715,301,000	.....
Spring wheat.....	203,170,000	— 4,879,000
Oats.....	1,219,521,000	— 5,294,000
Barley.....	198,298,000	+ 3,001,000
Rye.....	84,552,000	.....
Buckwheat.....	20,076,000	+ 886,000
Potatoes.....	350,070,000	+ 876,000
Hay, tame and wild (tons).....	103,544,000	.....

From this it will be seen that, while spring wheat and oats fell short of the September expectations, the other crops for which the final returns were not yet in showed an increase over the previous month's estimates. This increase was especially notable in the case of corn, due to the favorable weather conditions prevailing in the chief corn-growing sections.

"A CATTLEMAN'S STORY"

JOHN A. EDWARDS, of Eureka, Kan., member of the executive committee of the Kansas Live Stock Association, has written a most interesting and readable account, entitled "A Cattleman's Story," of the journey of the committee of Kansas cattlemen to Chicago and Washington late in September and early in October. In witty language, sometimes tinged with sarcasm, he tells the tale of their various conferences with packers, government officials, and members of Congress, in their efforts to save Kansas stockmen from losses occasioned by the ruinous decline in cattle prices. We quote the concluding paragraphs of his statement, as follows:

The delegation before dispersing decided that an appeal to the public and to the press by the live-stock interests was the course to pursue. That course might bring some relief to an industry which engages the lives and the fortunes of thirty million people—thirty million who during each moment of the war sent pounds and pounds of pork and beef and mutton and poultry to the boys in France; so many millions and millions of pounds of meat and wheat that, when the war was over, miles and miles of food, stories high, were standing in testimony of the affection and the production of the thirty million.

It is the public and the truth that must save this industry from ruin. It is the public that must right the wrong that is being committed. It is the public that can rescue these war products from the grasp of the retailer and the packer. It is the public who can pay and demand fair prices and encourage production. The consumers of this nation will have sealed and settled, or averted, the doom of the producers long before the courts can judge or Congress can legislate. Men of modest ways and quiet tongue, men whose lives are spent in work and in peace and in no complaint, men who avoid courts and publicity and appeals, made this trip to Washington. They went with hope to save their property and the business of their commonwealth from an unjustifiable, an unwarranted, an undeserved fate.

The complete story is being published in the *Kansas Stockman*. It has been printed in pamphlet form, and can be obtained by writing to Mr. John A. Edwards, of Eureka, Kan.

CATTLE-RAISERS OF TEXAS MEET IN CONVENTION

THE EXECUTIVE COMMITTEE of the Cattle Raisers' Association of Texas held its quarterly meeting at Dallas on October 8. Two hundred and forty-two applications for membership in the association were presented and the applicants accepted. It was decided to hold the forty-fourth annual convention of the association at Houston on March 16, 17, and 18, 1920. Stockmen were urged to take more interest in the prosecution of cattle-theft cases. A bill to regulate live-stock commission merchants was considered. A resolution was adopted urging the War Finance Corporation to extend the maturity of loans to stockmen unable to meet their payments. The recommendations formulated by the Texas Industrial Traffic League relative to pending federal railroad regulations were approved. These recommendations are printed elsewhere in this issue.

The Kendrick-Kenyon bills were fully discussed, and President Turney stated that when the hearings on these bills were resumed in Washington he would go there with a committee to present the views of the members of the association, as embodied in the resolution favoring this legislation adopted at the 1919 convention.

REDUCTION IN OCEAN RATES

THE UNITED STATES SHIPPING BOARD has reduced the freight rates on American ships carrying meat to Europe from four and one-half to three and one-half cents per pound. Even the latter basis is unreasonable and indefensible, except on the theory that the Shipping Board can extract such a charge on account of lack of boats. We wonder if the board cannot justly be accused of a wee bit of profiteering in these charges. Before the war, ocean shipping charges were approximately one-half cent per pound. The Kansas Live Stock Association helped greatly in securing this reduction.

NEW REASON ASSIGNED FOR HIGH PRICE OF SHOES

IN THE SEPTEMBER NUMBER of THE PRODUCER we quoted from the report of the Federal Trade Commission, in which the causes for the present extravagant price of shoes were analyzed and found to be due, in most part, to reckless profiteering. One of the most recent subterfuges advanced by manufacturers and dealers is the duty lately levied by the Indian government on the export of hides. How poorly this new

excuse holds water is thus set forth in the *New York Times*:

Plausible statements seem to be forthcoming whenever they are required to reconcile consumers to paying more for the shoes they wear. At one time it is the alleged scarcity of hides; at another, it is the mounting labor cost; and so on. Both the two causes mentioned have been worked overmuch, and neither seems to bear investigation. It is yet to be shown, to take only one instance, that the entire labor cost in a pair of shoes retailing at \$14 amounts to as much as \$1.75. Putting this aside, however, it is worth calling attention to another circumstance which came up during the past week, and which was put forward as something to justify higher prices for footwear. This was the reported action of the government of India putting a 15 per cent export duty on hides and skins, and allowing a rebate on such as are consigned to Great Britain or British colonies to be there converted into leather. This action, it was asserted, would result in further scarcity of raw materials here, and would also tend to make it possible to produce leather cheaper in Canada than here. As to one of these matters, it is only necessary to say that, if Great Britain or her possessions secure more hides and skins from India, it will not be necessary for them to take as much leather or articles made of leather from this country as has been the case. The shipments of cattle hides from India to this country have been negligible, having been during the past fiscal year about 2,000,000 pounds out of a total of nearly 254,000,000 pounds. Of calfskins, India sent during the period 2,854,382 pounds out of a total of 20,648,425. Shipments of goatskins have been larger, having been nearly 42,000,000 pounds out of a total of over 89,000,000 pounds. But the average value of the latter was less than 44 cents a pound, and the duty would only add 6.6 cents per pound to this, which would cut no figure so far as the price of a pair of shoes is concerned.

CO-OPERATIVE LIVE-STOCK SHIPPERS MEET IN CHICAGO

ON OCTOBER 7 and 8, 1919, the official committee of fifteen selected by sectional meetings of farmers' co-operative shipping associations met in Chicago for the purpose of formulating plans for the organization of a National Federation of Co-operative Live-Stock Shippers, previously mentioned in our pages. Thirteen states, besides Canada, were represented. The following outline of work to be undertaken was submitted:

Local Markets—Plans of local organization; local handling (loading, marking, grading); feeding at home; yard facilities; local liabilities and insurance; sales; branding.

Transportation—Car shortage; feeding in transit; rates; legislation for rates; claims; insurance; dirty cars; delays in transit.

Terminal Markets—Terminal switching; inspection; methods of handling at the terminal markets; feeding in the terminal yards; trouble man; switching; commission-men problems; feed problems; yard facilities; pro-rating.

Resolutions were adopted, setting forth the aims and immediate program of the federation, as follows:

"Resolved, That we solicit the interest and co-operation of all organizations interested in the shipment of live stock, and urge that such organizations, in developing shipping machinery, follow uniform plans to be submitted by the National Federation, and that all interested bodies support and co-operate with the proposed National Federation."

"Resolved, That this committee urge the development of state federations of co-operative live-stock shipping associations and other shipping interests wherever conditions warrant."

"Resolved, That state college extension divisions, in states where live-stock shipping associations have not been formed, be urged to adopt a state project furthering the shipping-

association movement through the agency of farm bureaus and county agents, and all other organizations and agencies interested in shipping of live stock.

"Resolved, That we suggest that all important agricultural meetings and conventions further the co-operative shipping movement by including representatives on their programs."

"Resolved, That this committee request the agricultural press of the nation to give wide publicity to the shipping-association movement, and the development of state and national federations."

"Resolved, That this committee request all state federations, local shipping associations, and all other organizations and agencies interested in live-stock shipping, to do all in their power to promote large attendance at the final organization meeting, to be held in Chicago at the time of the International Live-Stock Exposition."

"Resolved, That we solicit wide interest in the shipping-association short courses to be arranged at various points in the United States, and urge all managers, officials, and others interested in co-operative and other live-stock shipping to support and attend these schools."

Another resolution requested the Bureau of Markets to designate a representative to take direct charge of the short courses at central markets named above.

This program is to be laid before a meeting of representatives of shipping associations to be held in Chicago at the time of the International Live-Stock Exposition, November 29 to December 6, when permanent organization of the National Federation will be effected.

ARIZONA CATTLE-GROWERS TO DISCUSS MEAT-PACKING BILLS

AT A MEETING of the executive committee of the Arizona Cattle Growers' Association, held in Phoenix on September 29, it was decided to issue a call for the entire membership of the association to convene at Phoenix on November 10, for the purpose of discussing the pending meat-packing legislation. As will be remembered, the Arizona association at its annual convention in February indorsed the Kendrick bill, with proper amendments.

At the same meeting a resolution was adopted urging the Cattle Loan Agency of the War Finance Corporation to grant an extension of loans to stockmen of Arizona, falling due on November 1, for another year, in view of the fact that local banks, which otherwise would be called upon to take over these loans, already are carrying live-stock paper to their full capacity; and the committee went on record as being in favor of the Federal Reserve Banks accepting cattle paper secured by stock on ranges for a term of at least one year, instead of six months as hitherto.

MIDDLE PARK STOCK-RAISERS FAVOR PERMIT SYSTEM FOR UNAPPROPRIATED DOMAIN

BY UNANIMOUS VOTE the Middle Park Stock Growers' Association, at a meeting held at Kremmling, Colo., on September 20, passed a resolution recommending that the unappropriated public domain be placed under the supervision of the Department of Agriculture, on a permit-system basis similar to that now in use on national forests.

FARMERS AND THE COST OF LIVING

[Economic World]

IN FRANCE, as in the other industrial countries of Europe and also in the United States, the campaign of the industrial and urban classes, with governmental support, for the reduction in the "cost of living," the fixing of the prices of "necessaries" at comfortable levels, etc., is in the last resort directed against the agricultural producers. It is they who are intended to bear in the end—whatever may be said of

middlemen, profiteers, and the like in the meantime—the burden of toil implied by the doctrine of the industrial workers that the time has now arrived for them to work less and receive higher remuneration for their labor, to add to the comforts and satisfactions of their lives by producing less while suffering no diminution of the products they themselves consume, and, in short, to achieve the millennial condition of having “work but a mere incident in their lives.” In the United States the agricultural producers are beginning to show great impatience at the selection of their class to work long hours for a relatively small compensation, to the end that the industrial workers may work short hours at a relatively high compensation. In fact, there are not lacking signs that the American farmers are thinking, and even moving in the direction, of a reduction of their own working hours, and hence production of foodstuffs and other agricultural products commensurate with the program which the industrial workers are striving to render effective. No one at all familiar with the present state of mind of the more intelligent farmers in all parts of the United States can doubt that the labor leaders and other representatives of the urban classes are playing with fire when they clamor for price-fixing and similar expedients in connection with the distribution of the products of American farms. Every project of this character simply intensifies the sense of injury felt by the farmers, and hastens the day when they will resort to reprisals through the adoption of the same methods and objectives which the urban population of the country is vociferously calling for.

GRADING OF COUNTRY HIDES

MUCH MAY BE DONE to improve the country branch of the hide and skin industry by marketing the hides and pelts on a graded and selected basis, according to relative merits, and by avoiding many of the profit-absorbing intermediary agencies through more direct marketing by the rural producers. In this way, says the United States Department of Agriculture, country producers will not only derive more profits, but the profits will be commensurate with the quality of their products—a condition which will prove an incentive to produce hides and skins of the best possible quality.

The preparation of hides and skins for market is of great importance, as where they are not properly prepared and shipped they are subject to great deterioration. The farmer who has thoroughly cured a number of hides and skins by the green-salting method commonly followed should place them over some elevated object, such as a barrel. They should remain there over night, to drain free of excess moisture; after which the surplus salt should be swept off or removed by thoroughly shaking the hides. If the hides are handled in this manner, and thoroughly cured before being shipped, the shrinkage should be relatively small when they are finally weighed at the hide-house. If the hides are not thoroughly cured, and if they have been in salt only a day or two before shipping, do not remove any of the salt, as the hides may spoil.

As a rule, hides are folded so that the hair side is out. It is essential to fold in the head and neck on the body of the hide, flesh surfaces together, and to turn in the tail in a similar manner. Then a narrow fold on each side should be made by throwing back the body edges and legs upon the body of the hide, flesh surfaces together, keeping the lines of the folds parallel. The legs should then be folded back and these lapped with the hair surfaces together, bringing the break of each fold near the middle line of the back. The side folds should then be completed by bringing together the two breaks of the folds with the middle line of the back as the main fold, in this way making one long rectangular bundle. The butt end of

the folded hide should then be thrown forward about four-fifths of the distance to the neck fold, whereupon the forward portion of the bottom lap should be folded back on top of the first fold, bringing the break of the rear fold even with that of the fold just made.

Each hide should be bundled separately and tied securely, about seven feet of strong cord being necessary to tie one hide bundle. A soft rope or line at least one-fourth inch thick is suitable for this purpose, although regular hide rope is preferable. Wire should never be used, as it is likely to damage the hide by rusting. Calfskins should be folded in the same manner as cattle hides. However, when more than one is to be shipped, two folded calfskins should be placed together and tied into one bundle, instead of tying each one separately.

Sheepskins are bundled differently from either cattle hides or calfskins. The wool sides are laid down and the skins are folded along the median line of the back, with the wool side out. As many as five skins folded in this manner can be placed in a single bundle for shipment. It is not advisable to pack more than this number in one bundle, as the wool helps to generate heat very rapidly. Two pieces of stout rope should then be wound around the pack from back to belly, one passing around the back portion just in front of the hind legs, and the other passing around the front portion immediately back of the forelegs. All bundles should be tied securely, using the nautical bow-line knot, as it does not slip easily. Bundles often become untied or otherwise lose their identification marks, in which cases the railroad employees have no means of determining the identity of either shipper or consignee, especially if there are other hide shipments in the car. All shipments of hides should be tagged with good, strong linen tags with a paper finish and brass eyelets, and all addressing should be done plainly with moisture-resisting ink. Hides and skins should be shipped as soon as possible after bundling, without needless exposure to sun, draft, water, or rusty or corroded metals.

Complete information regarding the best methods for skinning, curing, and preparing hides for market is given in “Farmers’ Bulletin 1055,” which may be obtained upon request to the United States Department of Agriculture, Washington, D. C.

RAINFALL DEFICIENCY IN DROUGHT COUNTRY

SO MUCH has been written on the drought in the western range country during the past summer that a statement of the actual rainfall throughout the affected region may be of interest. The following figures, taken from the official weather reports, show the precipitation from April to August, inclusive:

Stations	1919	Normal	Deficiency
Havre, Mont.....	4.08	9.10	5.02
Helena, Mont.....	1.55	6.96	5.40
Kalispell, Mont.....	4.13	6.55	2.43
Miles City, Mont....	4.74	8.33	3.59
Spokane, Wash.....	2.83	5.67	2.84
Walla Walla, Wash..	2.55	5.56	3.01
Baker City, Ore.....	1.29	4.70	3.41
Boise, Ida.....	1.25	3.69	2.43
Pocatello, Ida.....	2.45	6.40	3.95
Yellowstone Park...	3.95	7.13	3.18
Sheridan, Wyo.....	3.02	8.03	5.01
Lander, Wyo.....	3.34	7.87	4.53
Cheyenne, Wyo.....	6.49	9.31	2.82
Reno, Nev.....	1.43	2.03	0.60
Winnemucca, Nev...	1.74	2.89	1.15
Salt Lake City, Utah.	4.25	6.30	2.02
Modena, Utah.....	2.57	5.15	2.58

It is evident that people will never be satisfied in this country until everybody has more pay than everybody else.—*Park City (Ky.) News.*

THE STOCKMEN'S EXCHANGE

THE PRODUCER invites the stockmen of the country to take advantage of its columns to present their views on problems of the day as they affect their industry. It solicits correspondence on topics of common concern, such as stock, crop, and weather conditions, doings of state and local organizations, records of transactions of more than individual interest. Make it your medium of exchange for live-stock information between the different sections of the stock-raising region. Address all communications to *THE PRODUCER*, 515 Cooper Building, Denver, Colorado.

AMERICAN STOCK-GROWER SHOULD BE PROTECTED AGAINST IMPORTATIONS FROM SURPLUS COUNTRIES

SAN ANTONIO, TEX., October 16, 1919.

TO THE PRODUCER:

According to the table appearing on page 41 of the June issue of *THE PRODUCER*, the number of cattle in the leading countries whose logical outlet for excess production in the course of time will be the United States, is as follows. For purposes of comparison the population of the respective countries is placed opposite:

	Cattle	Population
Argentina	27,050,000	8,574,000
Australia	11,429,000	4,725,571
Brazil	28,962,000	24,618,429
New Zealand.....	2,888,000	1,159,720
Paraguay	5,249,000	800,000
Uruguay	7,803,000	1,225,914
Totals	83,381,000	41,103,634

The United States, with a population of 102,826,309, has 67,866,000 cattle; which is equivalent to about one and one-half persons per head of cattle. Applying this ratio to the above countries, it would only be necessary for them to have 27,402,420 cattle in order to be on the same footing as the United States. Consequently in these six countries alone there is an excess of 55,978,580 cattle as compared with the United States.

There are eleven other countries south of the United States on this continent, having a combined area almost equal to that of the United States, statistics from which are not available as to cattle production; but it is safe to assume that they would enormously increase the excess supply of cattle available for export to the United States.

When we consider that a large percentage of the population of these outside countries rely principally on wild game for their meat supply, we can understand that their actual excess cattle supply greatly exceeds the above figures.

The people of the United States are in better financial condition, as a whole, than the people of any other country on the globe. Besides, they are great meat-eaters. These facts lead me to believe that this country will be the natural outlet for this surplus meat. Hence it is inevitable that the live-stock producers of the United States (if they continue to pro-

duce cattle, hogs, and sheep in any substantial numbers) should have protection at least to the extent of equalizing the cost of production in this country as compared with what it costs to produce an animal in the countries mentioned above.

If these statistics are correct, it will be only a few years before the live-stock producers of this country will feel the effect of the importation of this surplus meat from these countries by the American meat-packers; but it does not necessarily follow that the consumers of meat will receive any substantial benefit therefrom. If the American packers are placed under some kind of government regulation or supervision, and the time arrives when we should have a tariff on meat importation in order to encourage production, we should have the agricultural branch of the government with us in our efforts to secure this tariff. On the other hand, if the packers defeat any legislation such as the Kendrick or Kenyon bill, they will be in a much stronger position to fight any tariff legislation than if we had government supervision at the time we seek to have the tariff law enacted.

Those stockmen and farmers who are opposed to government regulation of the meat-packing and allied industries will in due course of time discover the mistake they are making; but it will then be hard to correct it.

IKE T. PRYOR.

PACKER COURTESIES ACKNOWLEDGED

KIT CARSON, COLO., October 29, 1919.

TO THE PRODUCER:

Many of your readers have no doubt seen the letters published in the *Breeder's Gazette*, written by John G. Imboden, of Illinois, and Charles W. Hunt, of Iowa, singing the praises of the packers, and telling of their trip and the conclusions arrived at after attending the packers' convention at Atlantic City in September.

I am not surprised at the contents of these letters, as I presume these gentlemen attended the convention under the same conditions that the invitation, both by letter and wire, was extended to me—namely, that I make the trip at the expense of the packers.

I was satisfied that, if I accepted the invitation as the packers' guest, I should be expected to sign a letter something like the ones Messrs. Imboden and Hunt have written. I do not suppose the packers made any direct request that they be favored with an article extolling their morals, but they are smart enough to know that when they can get someone to accept their generous hospitality they have a very good chance of receiving a letter of praise from that individual. Their guess was good—two accepted their invitation, and they received two good letters, both of which have found a favorable location in the *Breeder's Gazette*.

I am very proud of the fact that, out of the many invitations extended to the producers, only two were accepted.

CHARLES E. COLLINS.

FROM OUR WASHINGTON CORRESPONDENT

WASHINGTON, D. C., November 1, 1919.

TO THE PRODUCER:

More than 22,000,000 acres of land in the public-land states have been designated under the 640-acre, or stock-raising homestead, act, according to the figures of the United States Geological Survey. This acreage represents favorable action upon the application of 37,374 individuals.

Sixteen states are affected by the designation orders which have already been issued. Of the total amount classified, more than one-fourth is in the State of Wyoming, which heads the list with 6,042,687 acres. New Mexico is second with 5,321,595 acres, and Colorado third with 3,039,595 acres. The number of acres for the various states is as follows:

Arizona	324,010	New Mexico.....	5,321,595
Arkansas	240	North Dakota.....	235,828
California	605,671	Oklahoma	22,481
Colorado	3,039,595	Oregon	1,496,729
Kansas	57,604	South Dakota.....	1,941,555
Montana	2,613,285	Utah	52,410
Nebraska	38,648	Washington	226,216
Nevada	28,980	Wyoming	6,042,687

Throughout the month of October the Peace Treaty occupied the attention of the Senate practically to the exclusion of all other legislative matters. From day to day, as debate proceeded, with important votes impending on proposed amendments, the presence of the individual senators was in constant demand on the floor. It followed that committee work was almost completely neglected. Senators would scarcely assemble in a committee-room before a hurry call from the floor would send them scurrying back to the Senate chamber to hold the lines for or against the treaty, as the case might be.

Had it not been for a resounding attack on the Federal Trade Commission by Senator James E. Watson, of Indiana, the month would have gone without a public word upon the proposed packer-control legislation. The Watson charges, of course, were part of the campaign long ago launched by the packers and their friends to convince the country that every suggestion for packer regulation emanates from the Reds. The charge that the Federal Trade Commission report upon the meat-packing industry was written by Bolsheviks and anarchists is on all fours with the propaganda circulated by the packers in their advertisements and circulars that the Kendrick-Kenyon bills propose government ownership. Both charges are equally unfounded.

Huston Thompson, of Colorado, Democrat; Victor Murdock, former Republican congressman from Kansas and later vigorous Bull Mooser, and William P. Colver, of Minneapolis, Democrat, members of the Federal Trade Commission, have hotly resented the Watson charges, and their spirited reply, calling attention to what they alleged were the activities of Senator Watson as a lobbyist before a previous Congress, may be the making of some new political history.

Senators Kendrick and Kenyon, who stand sponsor for packer legislation, do not, however, attach much importance to the controversy. Senator Kendrick points out that producers of live stock had formed their conclusions as to the need for legislation to regulate the meat-packing industry long before the Federal Trade Commission made its report.

"Producers have learned from experience," he said, "that regulation is a necessity, if the industry is to be properly protected, and the public at large does not need any report from the Federal Trade Commission or any other government agency to understand that a complete revision of our present methods of handling the food industry is needed, if we are to stop the breeding of Bolsheviks. So long as a very limited number of individuals of great wealth may maintain arbitrary con-

trol over an industry of such vast extent and such vital importance as the supplying of food to the people of this great country, just so long will there be a fertile field for the growth of radical ideas. The time has gone by when any group of men, large or small, can successfully assert that their business and their interests are more important than the public interest. The public, out of self-protection, will insist upon regulation of the food industry, just as it has insisted upon regulation of every other great business which affects the public welfare."

Friends of the pending regulatory measure are hoping that the Peace Treaty will be put out of the way during November, and that it will thus be possible to resume consideration of this problem. The plan has been to reopen hearings perhaps for a week or two, when the heads of the big packing concerns would be given an opportunity to appear in person before the Senate Committee on Agriculture. No definite decision had been reached, however, on the first of the month, and the outlook was that no real action could be expected before next session. But all calculations may be offset by the "Irreconcilables" on the treaty. Senator Borah, of Idaho, inveterate foe of the League of Nations, intimated in the debate on the prohibition-enforcement act that the fight would be carried against the covenant to the very last ditch. It is believed by some that it is his intention to make the league a presidential issue, and to this end they believe he will father a filibuster even against ratification with reservations. If that is to be the case, there will be precious little opportunity for other legislation.

Prospects for early action upon railroad legislation seem to be growing daily more remote. Nothing, of course, will be done at the present session; but that an effort will be made to rush through some sort of measure early in December, after the regular session opens, goes without saying. The difficulty, however, lies in the fact that the Senate, or Cummins, bill and the House, or Esch-Pomerene, bill are so different in their provisions that an early agreement seems out of the question.

It is generally expected that the Esch-Pomerene bill will be passed by the House without a great deal of difficulty, although many changes in its form may be anticipated. In the Senate, on the other hand, the Cummins bill will have a much harder time. Neither bill is likely to receive much support in the other house. Another complication arising as this is written—namely, the coal strike, the outcome and effect of which are altogether problematical—will unquestionably have tremendous influence upon this legislation.

A not unreasonable prediction would be that Congress will decide it to be the better part of judgment to allow the matter to go over until after the presidential election, by extending the period of federal control of the railroads until it is possible to obtain a direct expression of the people upon the issue.

Blanket emergency freight rates for the shipment of live stock from all points on the Union Pacific and the Burlington in Wyoming and southern Montana to pasture lands in Colorado, New Mexico, Arizona, Kansas, Oklahoma, and Texas were made effective on October 26 by the Interstate Commerce Commission, upon authority issued by the Railroad Administration, with which Senator John B. Kendrick, of Wyoming, had been negotiating for the greater part of the summer.

Early in July, when it became apparent that the drought in the Northwest would compel heavy shipments to grass, Senator Kendrick presented the matter to the Railroad Administration, with the request that an emergency rate be granted.

The first concession was the issuance of an authority for the application of northbound rates on southbound shipments on the request of the individual shipper. Later a return privilege of one-third was secured; and finally the Railroad Administration went the full way by granting blanket rates.

After having ordered a favorable report on a bill introduced by Senator Jones, of Washington, appropriating \$250,000,000 for the United States Reclamation Service, the Senate Committee on Reclamation in October reconsidered its action and decided that it would be better to recommend a smaller amount. The action was prompted by the fear that Congress would not at this time approve so large an appropriation for general reclamation purposes. The new plan will be to bring in a bill providing funds for the completion of several projects now under way.

Receipts of the reclamation fund have been greatly diminished in recent years, Secretary Lane told the committee, because of war conditions and because the extension of time for repayment by settlers, authorized by Congress in 1914, has greatly reduced the annual income of the fund. The progress of reclamation work has consequently been retarded. Department figures show that approximately \$100,000,000 will be required to complete projects already under way. Unless the reclamation fund is increased from some source, the projects in Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Washington, and Wyoming will suffer.

The passage of the leasing bill by the House on October 30 opens up a possible new source of revenue for the Reclamation Service. This bill, which has already passed the Senate at the present session, provides for the use of royalties derived from the development of mineral lands on the public domain in the reclamation fund. The Senate bill gives 45 per cent of the royalties to reclamation, 45 per cent to the state in which the lands are developed, and 10 per cent to the Federal Treasury. The House bill gives 60 per cent of all future royalties to the reclamation fund, 30 per cent to the state, and 10 per cent to the federal government. It is estimated that from this source the reclamation fund will derive an income of several million dollars annually.

The leasing bill, however, has so frequently been on the threshold of enactment into law during the past six years, and has so consistently failed, that, although the outlook for its adoption is more favorable now than at any previous time, observers are loath to predict the outcome. In any event, the reclamation fund would scarcely benefit in less than a year or two, even if the bill were finally enacted.

It seems certain, therefore, that the Reclamation Committee will soon make a formal favorable report on a bill appropriating approximately \$50,000,000 to complete projects already under way.

The great value of reclamation was brought out during the hearings on the Jones bill, when Director Davis, of the United States Reclamation Service, testified that the gross value of the products grown during 1918 on land within all the reclamation projects amounted to about \$67,000,000, exclusive of the increase of live stock. This, he said, was approximately 50 per cent of the total cost of all the reclamation projects.

Following the announcement by Secretary Redfield, of the Department of Commerce, that the executive branch of the government is without authority to place any embargo upon the importations of wool, Senator King, of Utah, introduced in the Senate a joint resolution laying an embargo upon all importations of raw wool until the government stores are

disposed of. The resolution has been referred to the Committee on Finance, of which Senator Penrose is chairman. In spite of the fact that Senator Penrose has announced that no tariff legislation would be considered at this session, the Utah senator is making every effort to have an exception made in the case of his resolution.

The announcement that Great Britain had removed its war-time embargo upon exportations of wool, and that American bidders would be permitted to purchase British supplies, brought numerous protests from western wool-growers against importations into the United States. Official information received by the Bureau of Markets indicates that 40,000 bales of Australian wool and 10,000 bales of New Zealand wool will be sold at Boston during the latter part of November. The situation was thoroughly canvassed by the officials of the Department of Agriculture and the Department of Commerce, with the result already stated—i. e., that it was decided that as long as the law permits importations the President has no authority by executive action to impose an embargo.

REFLECTIONS FROM THE NATIONAL SWINE SHOW

CHICAGO, ILL., October 22, 1919.

TO THE PRODUCER:

After any job has been completed, it is easy in retrospect to discover where it might have been improved. If the National Swine Show is again held in Des Moines—and it will most likely be held there October 4-9, 1920—many of the prevailing conditions will be changed. First experiences always teach some valuable lessons.

As to the quality of the animals on exhibition, nothing more could have been desired. Almost, if not quite, every breed had out the best exhibit ever driven in the show ring. All parts of the Middle West and Southwest, and even New England, were represented.

One of the most gratifying features was the absolute freedom from outbreaks of contagious or infectious diseases on the grounds. Several hogs were sick and temporarily off feed, and two prominent boars died during the week; but veterinarians reported that there were no signs of cholera, mixed infection, or other diseases which have been so common at shows during the past few years.

The attendance was decidedly below expectations, largely due to the continuous downpour of rain. The people of Des Moines did not really learn what the National Swine Show was until almost the closing day. They now seem eager to make their city its permanent home, as well as to move the office of the secretary of the National Swine Growers' Association there.

W. J. CARMICHAEL,
Secretary, National Swine Growers' Association.

NORTHEASTERN OREGON TO DO LITTLE FEEDING THIS WINTER

BAKER, ORE., October 27, 1919.

TO THE PRODUCER:

Regardless of the low prices that have prevailed for some time, practically everything fit to go into a can has been shipped out of this country. Hay prices have dropped from \$2 to \$5 within the last few days; but apparently our winter set in in earnest a few days ago, and, if it continues, it will take a vast amount of hay to carry the stock cattle over. The fall round-up on the range was from a month to six weeks earlier this year than it has been since I have been acquainted with the cattle industry.

S. O. CORRELL.

WHAT THE GOVERNMENT IS DOING

FARM CENSUS TO BEGIN IN JANUARY

FIFTEEN MILLION COPIES of the farm schedule have been ordered printed by the Bureau of the Census for use in gathering the agricultural statistics of the nation for the fourteenth decennial census. To facilitate the work of taking the census and promote accuracy, large numbers of schedules will be distributed in advance of the enumerator's visit, in order that the farmer may become familiar with the questions and be prepared to furnish promptly the required data regarding acreage, tenure, values, live stock, and crops.

The enumeration will begin on January 2, 1920, and it is planned to complete the gathering of both population and agricultural figures by February 1.

SOUTHWESTERN CATTLE LOANS CALLED IN

ANNOUNCEMENT IS MADE from Washington that loans granted to cattle-growers in the Southwest to aid them during last year's drought have been called in by the War Finance Corporation for payment November 15. The amount outstanding October 18 was \$3,182,346.

Extensions will be allowed only in exceptional cases, but the corporation will consider applications from approved banks for advances up to 100 per cent of the amount advanced by them to cattlemen, in order to aid deserving borrowers to finance their requirements.

All the loans were made in the Panhandle country of Texas, Oklahoma, and New Mexico, with the exception of \$627,000 in Kansas City, repayment of which already has been arranged.

The corporation gives as a reason for its action the fact that it wishes as early as practicable to liquidate its loans and close up its war-time business. It is further suggested that no borrower ought to ask or expect the government through the War Finance Corporation to extend his loan under present conditions, if he can by any reasonable effort secure the money elsewhere.

CARLOAD RATES ON LIVE STOCK

ALL RATES ON SHEEP in double-deck cars that are higher than the rates on fat cattle in single-deck cars are likely hereafter to be declared unreasonable, if shippers of live stock will but bring them to the attention of the Interstate Commerce Commission. Several years ago the commission, on complaint of the American National Live Stock Association against the Southern Pacific Railroad (involving, however, only business in Arizona), held rates on sheep in double-deck cars that were in excess of the rates on fat cattle to be unreasonable.

Now Chief Examiner Thurtell proposes, in a report on the complaint of U. M. Slater, Inc., against the Southern Pacific, the Nevada-California-Oregon Railroad, and others, that that

rule shall be enforced even when sheep shipments originate on a narrow-gauge road, such as is that part of the Nevada-California-Oregon which joins the Southern Pacific at Wendell and brings sheep from points in Oregon to San Francisco, Oakland, and other San Francisco Bay points.

The complainants are dealers in live stock and packing-house products. The Nevada-California-Oregon undertook to justify the higher rates on the theory that, because it takes three of its narrow-gauge cars to hold a double-deck load of sheep, it should be permitted to charge higher rates for a double-deck load of sheep than it would receive for a single-deck load of fat cattle. It is necessary to transfer the sheep at the junction point, so that the narrow-gauge road does have expenses that do not fall on other roads. That, however, in the eyes of the chief examiner, is not sufficient to warrant it in charging more for hauling enough sheep to load a double-deck car than it would charge to haul fat cattle making up a single-deck carload.

Reparation for the overcharges will be made to the complainants, the measure of damage being the difference between the rates charged and the rates held to be reasonable.

WORLD'S TOTAL LIVE-STOCK SUPPLIES ABOUT SAME AS BEFORE WAR

SUMMING UP THEIR IMPRESSIONS of live-stock conditions abroad, Turner R. H. Wright and George A. Bell, who have been investigating the live-stock and meat-trade situation in Europe for the Department of Agriculture, have recently submitted a report, from which we quote as follows:

"The situation with respect to the total number of live stock in nine countries of western Europe and in the United States, Canada, Argentina, Australia, and New Zealand, considered as a whole, according to the best information available, is very much the same as before the war. The European countries are important from a consuming standpoint, and the other countries are important from a producing standpoint.

"A comparison from the figures shows that the total number of cattle in the fourteen countries increased approximately nine millions, while the total number of sheep and swine (figures for which are for thirteen countries, as recent data on sheep in Belgium and swine in Argentina are not available) decreased approximately two and one-half millions and seven and one-fourth millions, respectively, which practically counterbalances the increase in cattle. This does not take into consideration the former empires of Austria-Hungary or Russia, nor the Balkan states; for recent data regarding the number of animals in those countries are not available. If data were available from these countries, a still further decrease as compared with pre-war numbers of live stock in Europe would probably be shown.

"The most important factor to be considered, however, is that the total numbers of cattle, sheep, and swine in the nine European countries have decreased, while the total numbers in other countries have increased. Cattle decreased a little more than seven millions in the European countries, and increased a little more than sixteen millions in the other countries named. The loss in numbers of swine in the European

countries amounted to approximately twenty-four and a half millions, as compared with a gain of approximately seventeen and a half millions in the other countries. The decline of sheep in the European countries was approximately seven and a half millions, and the increase in the other countries approximately four and three-fourths millions.

"Inasmuch as the greatest decrease in the live stock of these European countries was in the herds of swine, this phase of the situation is of vital importance. While some of the countries, particularly Belgium, France, and Italy, may try to increase their supplies of meat, and to build up their dairy herds by the importation of a few live cattle, our chief interest lies in the future market for our surplus pork and lard. The length of time which will be required to re-establish the European herds of swine has been variously estimated at from one to three years. Judging from opinions expressed by government officials and stockmen in the different countries visited, and from our observations, it appears to us that two years will elapse before the herds are brought back to pre-war normal; that is, the herds will not be back to pre-war numbers before the latter part of 1921. This, of course, will depend on weather and crop conditions in the countries affected, the amount of grain available for feeding, and the rapidity with which the production of the dairy herds is increased.

"While the shortage of live stock in Europe may be felt in those countries for several years, it does not follow necessarily that importations of meat and lard equivalent to the difference between pre-war and immediate production will be made while herds and flocks are being brought back to the old basis. The ability to buy, credits and exchange, taxes, and the needs for retrenchment undoubtedly are factors which will and must be considered. All of these will tend to limit the amount of money sent to other countries for the purchase of food, and it is very likely that our exportations of meats and meat products may reach the pre-war level before the herds and flocks of Europe have been increased to pre-war numbers. The demand for these products, however, very likely will be considerable for some time."

STOMACH WORM NO OBSTACLE TO SUCCESSFUL SHEEP-RAISING

THE STOMACH WORM need not be a serious trouble for a good shepherd who has his lambs come early, feeds well, drenches the flock as a measure of prevention, and provides a rotation of pastures or pasture crops. That is the judgment of the Department of Agriculture on one of the most serious problems for owners of farm sheep. Definite information concerning the essential things is embodied in Circular No. 47, "Stomach Worms in Sheep—Prevention and Treatment," prepared by the Bureau of Animal Industry. The whole subject is summarized in five questions and answers. Condensed, these are as follows:

1. How can one tell when sheep have stomach worms?

Dulness and lack of thrift are among the first indications. Scouring is often noticeable. These conditions might result from other causes, but, when due to stomach worms, are accompanied by a pale, bloodless appearance of the skin and the mucous membranes of eyes and mouth. Sometimes there is a watery swelling under the jaws.

2. How do the worms injure sheep?

These very small worms live in the alimentary tract, principally in the "fourth stomach," and injure sheep by consuming blood and by secreting a poisonous fluid which destroys red blood corpuscles. The injury is often fatal to lambs. Adult sheep are better able to withstand it.

3. How should infested sheep or lambs be treated?

Make a drench by dissolving $\frac{1}{4}$ pound of powdered blue-stone in a pint of boiling water, and add sufficient cold water to make a total of 3 gallons of solution. The dose for an adult sheep is $3\frac{1}{2}$ fluid ounces; for lambs under a year old, $1\frac{3}{4}$ fluid ounces. It is better to use this early, before serious trouble develops, than to wait until the lambs begin to die. Care, however, is necessary in drenching, and improper dosing may cause serious damage. While the lambs are with the ewes, change pasture every two weeks, if possible, and do not return the flock to the old pastures until the lambs are sold.

4. How do sheep become infested by stomach worms?

The worm lays its eggs in the stomach of the sheep. They are passed out with the feces, and hatch on the ground. In the

last larval or infectious stage the young worms climb up on grass blades, and are taken into the stomach of the sheep and lambs with their food. They will live for a long time in the pasture. For all practical purposes it may be considered that a pasture will not remain infested longer than a year, in the absence of sheep or other ruminants. Another way of freeing a pasture of its infection is to plow it up. It is not of much consequence whether every larval stomach worm in the pasture is dead or not. The object is to keep the number so reduced that they are not likely to prove injurious to sheep.

5. What methods can be employed to prevent loss from stomach worms?

Prevention, when it is possible to take the necessary precautions, is more satisfactory and economical than treatment. The most effective measures of prevention are: Have the lambs dropped early, and feed to develop them as much as possible before they go on pasture. Rotate pastures. Where feasible, plow up infested land and put it in forage crops that will make good grazing for sheep. Where sufficient changes of pasture cannot be provided, drench with bluestone as a preventive and curative measure. Many successful shepherds dose all the ewes before turning them on pastures with the lambs, and, after weaning time, dose all the lambs that are to be kept. This is done as a means of keeping infection of the lambs down to a minimum.

MORE FACTS NEEDED IN LIVE-STOCK INDUSTRY

DR. JOHN R. MOHLER, chief of the Bureau of Animal Industry, told the American Meat Packers' Association, in session at Atlantic City, that live-stock production and methods of marketing will never have any real stability until more is known about certain basic problems.

"It takes time and costs money to get those facts," said Dr. Mohler, "but such information will be needed before there can be any real stability in live-stock production and methods of marketing. Only upon a substantial foundation of accurate knowledge is it possible to build enduring plans or policies which will have the respect of the public and become a real public service.

"The protection of public health will always be of paramount interest; but, aside from that, perhaps the most important activity which I can commend to your attention is the collection of facts and figures relating to the live-stock industry. Federal meat inspection has resulted in important information leading to the control of animal diseases. We know, for example, that tuberculosis and hog cholera cause more than one-half of all condemnations in federally inspected establishments. We need to know more about the condition of animals slaughtered under local inspection. We need to know the definite relation between the breeding of an animal and the value of different cuts of meat the carcass contains. I refer, of course, to the need for figures on large numbers of live stock. We need to know more about factors leading to rapid maturity, more about shrinkage, and more about the location of live stock and meat supplies in the country at any given time."

PROGRESS OF TUBERCULOSIS-ERADICATION WORK

AN OFFICIAL LIST of tuberculin-tested herds, just published by the Department of Agriculture, shows that in nine months the number of animals in tuberculosis-free accredited herds increased from 6,945 to 19,021, while the number of cattle once tested mounted from 22,212 to 97,243. Virginia leads in number of accredited herds, as 196 herds, consisting of 1,231 pure-bred and 3,914 grade animals, have been accredited in that state, while Virginia dairymen have also subjected 487 herds, made up of 6,789 grade and 876 pure-bred animals, to a single tuberculin test without reactors. Minnesota ranks next in total number of animals once tested.

In the month of September 40,858 cattle, belonging to 2,708 herds, were tested for tuberculosis. Of this number, 1,691, or 4.14 per cent, reacted.

THE MARKETS

LIVE-STOCK MARKET AT CLOSE OF OCTOBER

BY JAMES E. POOLE

CHICAGO, ILL., November 1, 1919.

Cattle Market Still Chaotic

COME WITH US, as a touring conductor would say, into No Man's Land—a section of the cattle market where both buyers and salesmen are hazy as to intrinsic values; where bullocks that, to the eyes of the layman, look exactly alike sell \$1 per cwt. apart at the same moment; and where the grower gets his "trimmings." Your market paper, in which you probably place all the confidence merited by the family Bible, may inform you that such steers are 50 cents per hundred lower—or higher, as the case may be; but to the men who buy and sell them it is a huge joke. And through No Man's Land a large proportion of the cattle seeking the stock-yards must pass, whether they go to the killer or feeder. Ask a buyer what a certain bunch of bullocks is worth, and he will reply: "Damfino until their hides are off." Frequently he and the salesmen will disagree as much as \$2 per cwt. concerning the price, a conclusion being reached by a compromise process which varies according to the relative positions of those engaged in the dickering. Usually the salesman compromises much after the same manner as the married man who in domestic controversies compromised with his wife by letting her have her own way. Every trade recorded at the stock-yards is a compromise, in fact. Except in the case of a few specialties placed in that category owing to scarcity, a standard rarely exists. Classification is also a joke, as a medium steer one week is relegated to the common grade the next; a canner today may be a cutter tomorrow; and when a buyer has an urgent order, his psychology enables him to convert a good steer into a prime bullock much after the same fashion as Aladdin got results by rubbing his extremely useful lamp, although the same beast may be relegated to an entirely different category a few hours later, if a few too many of that kind get in.

A "close-up" of the cattle market reveals many of these absurdities of barter, as the cinematograph reveals imperfections in a picture invisible at long range. The market may be visualized, but "beggars description," to quote the ecstatic reporter. You may acquire a fairly adequate idea by listening to the logical, earnest profanity of two shippers—neighbors presumably—who have loaded identically the same cattle from similar pastures, to realize prices, say, \$1 apart, that being a frequent occurrence. This happens daily in No Man's Land at the stock-yards, where they guess at values in much the same offhand manner that the Senegambian rolls dice in a crap game.

Compared with semi-panicky midsummer conditions, the market has been acting in a fairly respectable manner. During October prices gained anywhere from \$1 to \$2.50 per cwt., scarcity of good corn-fed cattle and fat grassers enabling them to hold it, the top climbing by notches until \$19.50 was paid late in the month both for yearlings and heavy cattle. Considering quality, these values were little lower than the high spot last April; but where one feeder had such cattle to vend a thousand were not interested in anything above \$16. Medium steers, selling at \$15 to \$17, advanced so substantially and confidently during the mid-October bulge as to infuse feeders with the old spirit of recklessness in making commitments;

but when prices broke \$1 to \$2 per cwt. late in the month, the danger signal blared its blast and feeders tightened their purses. Compared with its dilapidated midsummer condition, the October cattle market was not seriously in need of the services of an apologist; but an undercurrent of lugubrious opinion was always audible. In fact, the thing was too good to last. Good cattle were strongly entrenched at all times; two-dollar corn made that a cinch; but with the country loading up with sappy grassers at prices ranging from \$12 to \$15 per cwt., it was a foregone conclusion that, sooner or later, too much warmed-up stuff would show up; and when killers swat that kind they swat 'em hard. With the Corn Belt full of short-feds, and the West still gathering cattle industriously, an erratic November market is assured.

October witnessed an enormous movement of western cattle, Chicago and Kansas City getting 85,000 to 100,000 weekly, Omaha making a new record at 75,000, while the minor points wrestled with full houses; and November promises to repeat the dose. Cattle cannot subsist through the winter on short range, like sheep. Consequently owners in the drought sections had no alternative but order cars; delayed delivery of rolling stock retarding the movement to such an extent that the November movement is likely to be of seasonal volume, despite the fact that the run began prematurely in July. Considering conditions, range men have made no serious protest at prices. The beef end of the run has sold at \$12 to \$15.50, a lot of 1,200- to 1,280-pound northern-bred cattle going over the scales at \$13 to \$13.50. Corn Belt feeders, inspired by improvement in fat-cattle prices, and encouraged by an excellent corn crop, paid \$12 to \$12.50 for 1,000- to 1,100-pound feeders; a lot of well-bred dehorned steers, weighing around 900 pounds, going at \$11.50. Horned western cattle were penalized \$1 to \$1.50 per cwt. in the feeder market—a fact which western breeders will do well to consider. The western run has caused a large percentage of thin yearlings that went to feeders at \$8 to \$9, but an excess of trashy little cattle that realized little more than canner prices. The proportion of cow stuff has been large, most of it going to market on account of drought. Choice heavy cows have sold at \$12.50 to \$13, the bulk of the fat cows at \$10 to \$11.50, with thousands of fair killing cows at \$9 to \$9.50; cutters going at \$7 to \$7.50, and cannors at \$5.50 to \$6. This, in brief, is the showing of the western cattle market during the past month.

Cognizance must be taken of the bull market, wherein a bargain counter has groaned under its load all summer. Just how many bulls—scrub, grade, and pure-breds—have been dislodged by the northwestern drought will never be known. Thousands have sold at \$6.50 to \$7, proving a veritable mine of wealth to killers; hides and by-product realizing record prices, while demand for cheap beef and sausage material has insured substantial profits on the meat. This run disclosed the vicious character of the bulk of the bulls the range country has been using to get its annual calf crop—bulls that should never have been permitted to propagate their kind. They have been liquidated at ruinous prices, but the country is well rid of them.

Cattle by the trainload have been returned to Texas from Kansas pastures, but the residue has been equal to the task of keeping the Kansas City market hopper full. Thousands of these grassers have sold at \$10.50 to \$13.50, money having been lost on them when they were put in. Dodging this question is useless, and, if grazing is not to be carried on at a loss, less money must be paid for grass and better judgment shown in making stocker investments. Kansas pasture men were not alone in refusing to heed a conspicuous danger signal, as hundreds of thousands of steers went to grass in other states last spring at prices that precluded all possibility of profit in the finality of the transaction.

Every section of the Corn Belt, especially Iowa, has been hungry for stock and feeding cattle, gambling in the \$13 to \$15.50 kinds, and purchasing anywhere from \$8 to \$11 for a long pull. There were many holes to fill, and the continuous heavy run of westerns has afforded sections that were depleted an opportunity to restock. It is an ill wind that blows nobody good: incidentally, Corn Belt needs made a good market for thousands of thin western cattle that otherwise would have gone to the cannery.

Hogs an Unknown Quantity

Everybody and his female relatives are speculating on the future course of the hog market. At the low spot of the third week in October average cost reached \$12.50 per cwt. at Chicago—the lowest level in two years; a reaction of \$1.50 per cwt. resulting as the country ran true to form and promptly curtailed supply. It is a puzzling game, packers blowing alternately hot and cold, buying hogs one moment as if they were cheap; refusing to bid even at lower prices. Growers are asking if a slump of \$10.50 per cwt. from August to October was legitimate. The answer is that a \$23 market in August was never warranted by either supply or demand. All it accomplished was the elevation of retail prices to a plane that seriously curtailed consumption of hog product, which was distinctly to the disadvantage of the grower. Millions of pounds of meat that would have been worked into consumptive channels at reasonable prices could not be vended because consumers realized that they were being robbed, and manifested resentment in the only manner available. A few growers got \$22 to \$23 per cwt. for a few hogs at the high time; thousands were penalized on the disastrous October break. Many overstayed the good market on the assumption that the boom had not run its course; for which they are now nursing red-eyed regret.

A coterie of farm organizers, with headquarters at Chicago, which is assessing farmers \$10 per head for memberships and endeavoring to justify its existence by a series of fulminations in which the industry is pictured as headed toward ruin, has deplored the panic into which growers have been thrown by the break; but no sign of it is discernible. In fact, every break checks the primary movement. It is doubtful if packers will repeat 1907 tactics by forcing liquidation; they certainly will not repeat that performance if they desire a supply of raw material. Everybody knew that hogs were coming down, and it was logical expectancy that the common price would flirt with the \$12 mark during the winter packing season; but the drastic depreciation of October was not on the cards. Now that the public is getting tardy advantage of the decline, domestic consumption will revive, inserting a prop under the market that has been badly needed for months past.

Sheep on Firmer Footing

Coincident with purchasing by Colorado feeders who waited until the eleventh hour to fill feed-lots, the live-mutton market felt solid ground. Diversion of Wyoming stuff to Denver and northern Colorado feed-lots relieved congestion at Omaha and made a place at the market for the residue of a heavy crop of natives. For a month past the bulk of lambs has been selling between \$14 and \$15, an occasional uplift of 50 cents giving the selling side an inning. Once a \$16 quotation was recorded, but promptly erased. Feeders have bought thin western lambs greedily at \$12 to \$13, demand for breeding stock having been stimulated by orders aggregating 100,000 head from Montana, Utah, and Idaho, this outlet absorbing whole trainloads of yearling and ewe lambs selling around \$11. One Montana outfit, Storey and Work, took 25,000 head of "whiteface" cross-breds, and is in the market for more. Sheep, which have been ruinously low all summer, have firmed up, the bulk of the fat ewes selling at \$7 to \$8; wethers, at \$8.75

to \$10; and yearlings, at \$10.75 to \$11.50. High pelts and by-product have made it a profitable season for the packer, consumption of lamb having been on an enormous scale, as it was cheaper than pork. After the turn of the year a good sheep market is expected.

OKLAHOMA LIVE-STOCK CONDITIONS

BY W. R. MARTINEAU

OKLAHOMA CITY, OKLA., October 28, 1919.

IT SOUNDS RATHER STRANGE for Oklahoma to be complaining about "too much rain," but that is the situation here as the eleventh month of the year makes its bow. Deluge after deluge—and just at a time when a little frost and clear weather are most needed! Cotton-picking delayed thirty days or more—and still raining! Corn is spoiling, and the alfalfa seed crop has deteriorated to such an extent that a great shortage is certain. As with droughts, so with deluges, however—Oklahoma can absorb more climatic punishment, and come up smiling, than any other state in the Union.

From a live-stock point of view, the winter comes with as much uncertainty here as in the Corn Belt. Demand at the Oklahoma City market for stock cattle is above expectations, and the standard of quality desired is most encouraging. Texas has been a generous customer, thousands of stock steers and breeding cattle being sent to that state from this market. Prices have maintained a more stable basis than during any fall period in five years. Good yearlings are making \$7.75 to \$8.50, and choice kinds \$9, while those around 800 pounds—two's and three's—sell as high as \$10. Stock cows at \$6 to \$7 a cwt. show the country as wanting the right kinds.

As for finishing cattle, interest is at low ebb. Mill lots at Chickaska and Oklahoma City have been rented, and between the two the chances are that around 5,000 head will be finished, while other feeding centers report great modesty among those who usually are watching their cattle getting fat on meal and hulls at this time of the year.

Fat cattle are oddities, it being evident that the year's shortage at Fort Worth of over 300,000 head, and a reduction here of nearly 50,000, are principally a cut in killable kinds. Of the local weekly runs of 10,000 to 14,000 head, packers may get thirty or forty loads of steers, and there may or may not be a half-dozen loads averaging over 1,000 pounds. Jack-pots rule the roost, and to some the liquidation of breeding herds is an imminent menace. Pretty good grass-fat cows, such as form the bulk of receipts, sell at from \$7 to \$8.50, and the best 1,000-pound cows coming are pushed to make \$9.

Labor conditions are encouraging, and packers report ability to keep all available men supplied with the necessary forty hours a week.

STOCKER AND FEEDER TRADE ACTIVE AT KANSAS CITY

BY SAMUEL SOSLAND

KANSAS CITY, Mo., November 1, 1919.

CHANGES of \$1 to \$2 per hundredweight in stocker and feeder cattle prices in the course of a week are not uncommon in the present trade in Kansas City. During the middle of October advances of this proportion were witnessed, with sales of feeders up to \$14.25 to Illinois and Missouri, and in the past week the market declined fully as much. Such changes reflect a rather erratic condition in the trade. Still, there has been a large demand thus far this season, the October shipments being 160,000 head, compared with 174,000 a year ago, when total receipts of cattle here were larger. The shipments the past month were practically 43 per cent of the total cattle receipts of 378,000 head. A year ago the outgo was also about equal to 43 per cent of the record October run of 407,000 cattle.

The stimulus of the maturity of a large corn crop in Iowa, Illinois, and sister-states in their territory proved an excellent tonic for the stocker and feeder trade the past month, and is still a powerful influence. A widespread feeling among feeders that corn will be worth no more than \$1 a bushel on farms plainly stimulated purchases of cattle for finishing purposes. No great enthusiasm was manifest among the buyers, excepting in the middle of the month, when they paid between \$13 and \$14 for more feeding steers than at any other time this season. Buying fell off sharply the past week, due in part to a stronger tone in corn markets, the growing industrial unrest, and weakness in short-fed cattle.

Compared with a month ago, stocker and feeder cattle prices are mostly unchanged to \$1 lower. Common stockers are quoted down to \$5.75. The market is \$1 to \$2 lower than a year ago.

Iowa and Illinois continue the largest buyers. Missouri is a liberal purchaser, while Kansas is slow to enter the market. Her grazers have been hit so hard this season that they hesitate to arrange to winter cattle on a large scale. There has been some buying by Texas, which is unusual. It is probable Texas would have taken more cattle except for excessive rains in that state.

While many grazers have lost money on the stockers and feeders sold here the past month, and while range shippers were disappointed in instances, they really made good sales. The action of the market for fat cattle indicates that the buyers obtained no bargains, so far as the outlook for profits in feeding is concerned. The fat-cattle market does not exhibit a healthy condition, and it is believed that the shippers who disposed of cattle here the past month would not have realized the prices they received if the country buyers had given closer attention to the prospect for profits on their operations, instead of looking to the comparatively unsatisfactory market for new corn.

Leading trade authorities and railroads here agree that the October receipts here would have set a new record on cattle except for the serious shortage of cars. In the face of the lack of railroad equipment, the receipts of 378,000 head for the month were the second largest on record. Liberal supplies are expected to continue through November.

OPENING AND CLOSING WHOLESALE PRICES ON WESTERN DRESSED FRESH MEAT

For Week Ending October 31, 1919

[Bureau of Markets]

BOSTON		LAMB AND MUTTON	
BEEF		LAMBS:	
STEERS:		Choice	\$22.50-23.00
Choice	\$26.00-27.00	Good	22.00-22.50
Good	24.00-25.00	Medium	21.00-22.00
Common	12.00-16.00	Common	20.00-21.00
COWS:		MUTTON:	
Good	14.00-16.00	Good	15.00-16.00
Medium	12.00-13.00	Medium	14.00-15.00
Common	11.00-11.50	Common	10.00-12.00
BULLS:			
Medium	11.50-12.00		
Common	10.50-11.00		

NEW YORK		LAMB AND MUTTON	
BEEF		LAMBS:	
STEERS:		Choice	\$22.00-23.00
Good	\$22.00-26.00	Good	21.00-22.00
Medium	16.00-21.00	Medium	19.00-21.00
Common	12.00-15.00	Common	16.00-18.00
COWS:		MUTTON:	
Medium	14.00-15.00	Medium	14.00-16.00
Common	11.00-13.00	Common	9.00-13.00
BULLS:			
Common	9.00		

LIVE-STOCK MARKET QUOTATIONS, NOVEMBER 3, 1919

[Bureau of Markets]

HOGS			
	CHICAGO	KANSAS CITY	OMAHA
Top	\$15.25	\$15.25	\$14.75
Bulk of Sales	14.50-15.10	14.50-15.00	14.25-14.60
Heavy Wt., Med. to Ch.	14.65-15.10	14.50-15.00	14.40-14.60
Medium Wt., Med. to Ch.	14.65-15.25	14.50-15.25	14.50-14.75
Light Wt., Com. to Ch.	14.60-15.15	14.25-15.00	14.40-14.65
Light Lits, Com. to Ch.	14.25-14.85	14.00-14.75	.....
Packing Sows, Smooth	14.00-14.60	14.00-14.25	14.25-14.40
Packing Sows, Rough	13.75-14.00	13.50-14.00	14.00-14.25
Pigs, Med. to Ch.	13.75-14.50	.....	.....
Stock Pigs, Com. to Ch.	.....	13.00-14.75	13.50-14.50

CATTLE			
BEEF STEERS:			
Med. and Heavy Wt. (1,100 lbs. up)—			
Choice and Prime	\$17.00-19.65	\$15.25-18.25	\$15.50-18.25
Good	13.50-16.75	12.75-15.35	13.50-15.25
Medium	10.50-13.50	10.00-12.75	10.75-13.50
Common	8.25-10.50	8.50-10.00	9.00-10.75
Light Weight (1,100 lbs. down)—			
Choice and Prime	17.00-19.50	15.25-18.25	15.75-18.50
Medium and Good	10.25-16.75	10.00-15.25	11.75-15.75
Common	7.25-10.25	8.00-10.00	8.50-11.75
BUTCHER CATTLE:			
Heifers, Common to Choice	6.35-14.00	6.35-13.25	7.50-13.25
Cows, Common to Choice	6.25-12.75	6.35-11.25	6.75-12.50
Bulls, Bologna and Beef	6.00-10.25	6.00- 8.85	5.75- 9.50
CANNERS AND CUTTERS:			
Cows and Heifers	5.25- 6.25	5.00- 6.35	5.35- 6.75
Canner Steers	5.50- 7.25	5.75- 7.75	.....
VEAL CALVES:			
Lt. & Hdy. Wt. Med. to Ch.	17.00-18.25	12.75-16.50	12.75-14.00
Heavy Weight, Com. to Ch.	7.75-12.00	6.25-10.75	7.00-11.00
FEEDER STEERS:			
Heavy Weight (1,000 lbs. up)—			
Common to Choice	8.25-12.75	9.15-13.50	9.00-13.25
Medium Weight (800-1,000 lbs.)—			
Common to Choice	7.75-11.75	8.15-12.50	7.75-12.50
Light Weight (800 lbs. down)—			
Common to Choice	6.75-10.50	7.90-11.35	7.00-11.25
STOCKER STEERS:			
Common to Choice	6.00-10.00	5.75- 9.75	6.50-10.75
STOCKER COWS AND HEIFERS:			
Common to Choice	6.00- 7.75	5.40- 8.60	6.00- 8.50
STOCKER CALVES:			
Good and Choice	9.25-10.50	7.50-10.75	9.00-10.75
Common and Medium	7.75- 9.25	6.00- 7.25	6.75- 9.00
WESTERN RANGE CATTLE:			
Beef Steers—			
Good and Choice	11.50-15.25	.....	11.75-15.25
Common and Medium	7.50-11.50	.....	8.00-11.75
Cows and Heifers—			
Medium, Good and Choice	7.50-12.50	.....	6.75-11.25

SHEEP			
LAMBS:			
84 down, Med. to Prime	\$12.00-14.75	\$13.00-15.25	\$13.50-14.60
85 up, Culls and Common	8.50-11.75	8.00-12.25	8.00-12.50
YEARLING WETHERS:			
Medium to Prime	9.50-11.75	9.50-11.00	9.50-11.25
WETHERS:			
Medium to Prime	8.75-10.50	8.00-10.25	8.50- 9.75
EWES:			
Medium to Prime	6.75- 8.00	6.00- 7.75	7.25- 8.00
Culls and Common	3.00- 6.50	3.00- 5.75	3.25- 7.25
BREEDING EWES:			
Full Mouths to Yearlings	6.75-12.50	7.50-14.00	7.50-13.50
FEEDER LAMBS:			
	10.50-13.25	10.50-12.25	9.50-12.75

REVIEW OF EASTERN MEAT-TRADE CONDITIONS

For Week Ending October 31, 1919

[Bureau of Markets]

GENERAL MARKET CONDITIONS

Unfavorably warm weather during the early week, a general strike of packing-house employees at Boston, a strike of sausage-makers, boners, and meat-handlers at Philadelphia, and

a threatened strike of meat-cutters and sausage-makers, together with a large number of idle men on account of various existing strikes in other lines at New York, caused a weak and lower market on all classes of fresh meat except good and choice steers.

BEEF

Receipts of steers for the week were light at Boston, and fairly liberal at New York and Philadelphia, the bulk of receipts being common grades. The few good and choice steers offered found a ready sale at steady to strong prices, Boston showing an advance of \$1 per cwt., while the market remained practically unchanged at New York and Philadelphia. There has been an oversupply of common steers at all markets under an extremely quiet demand, and the price tendency has been lower. Prices, compared with one week ago, are \$1 per cwt. lower at New York and Philadelphia, and \$1 to \$2 per cwt. lower at Boston. A small number of good cows have sold at steady prices, while common and medium cows have sold on a weak and draggy market, with prices \$2 to \$3 per cwt. lower at Boston, about \$1 per cwt. higher at New York, and \$1 to \$2 per cwt. lower at Philadelphia, compared with last week's close. With light receipts and quiet demand, bulls have held barely steady at all markets, with a decline of about \$1 per cwt. at New York and Philadelphia. With a light to moderate supply, kosher beef has held fairly steady at all markets. With a moderate supply of hinds and ribs, and poor demand, the market has held steady at Philadelphia, and about \$1 lower at New York since early in the week.

VEAL

With fairly liberal receipts and demand generally quiet, prices are unchanged at Boston and New York, and \$1 to \$2 per cwt. lower at Philadelphia, compared with one week ago.

PORK

With receipts moderate to liberal, and demand affected unfavorably by weather conditions, all markets have shown a sharp decline. Compared with one week ago, prices on light loins are \$3 per cwt. lower at Boston, \$2 per cwt. lower at New York, and \$5 per cwt. lower at Philadelphia; while heavy loins have declined \$1 to \$2 per cwt. at all markets.

LAMB

With fairly liberal receipts, and a quiet and irregular demand, prices have declined at all markets. They are \$3 to \$4 per cwt. lower at Boston, \$1 per cwt. lower at New York, and \$2 per cwt. lower at Philadelphia, compared to last week's close.

MUTTON

With light to moderate receipts and generally quiet demand, the market has ruled weak, prices declining during the week \$1 to \$2 per cwt. at all markets.

MARKET CLOSING

Clearance is being made on steers at Boston, but with some concessions being made on the common grades. Cows are cleaning up fairly steady; pork, veal, and mutton weak; lambs weak and demoralized. The market is cleaning up in New York in a very unsatisfactory manner, with some movement to the freezer on steers. Some houses are making a forced clean-up, while others carry some stock over for next week's sale. The market at Philadelphia is closing in a generally weak and demoralized condition, a moderate supply of all classes of fresh meats being left unsold, and some pork being frozen.

STORAGE HOLDINGS OF FROZEN AND CURED MEATS

BELOW IS A SUMMARY of holdings of frozen and cured meats on October 1, 1919, compared with September 1, 1919, and October 1, 1918, as announced by the Bureau of Markets:

Commodity	Oct. 1, 1919 (Pounds)	Sept. 1, 1919 (Pounds)	Oct. 1, 1918 (Pounds)
Frozen beef.....	166,100,754	162,069,316	194,464,819
Cured beef.....	37,339,954	35,525,991	28,790,276
Lamb and mutton....	8,306,941	7,816,999	5,276,453
Frozen pork.....	61,402,072	90,509,793	46,498,380
Dry salt pork.....	332,708,092	338,270,372	283,571,900
Pickled pork.....	297,689,498	341,723,586	249,653,819
Lard.....	76,532,665	87,947,452	90,384,038
Miscellaneous.....	80,278,360	85,358,356	96,824,055

FEEDSTUFFS

COTTONSEED CAKE AND MEAL have advanced about \$9 per ton during the past thirty days. Prices at Texas mills are \$72.50 and at Oklahoma mills \$74.50 per ton, for standard 43 per cent protein. Quotations for delivery at Denver during the latter half of November are \$80.25 per ton, compared with \$71.25 a month ago. Wet weather and damage to the cotton crop are mainly responsible for this advance.

Cash prices: Chicago—corn, bulk of sales, \$1.45 to \$1.50 per bushel; oats, 70 to 75 cents per bushel; barley, \$1.25 to \$1.40 per bushel, varying according to grades; timothy hay, \$25 to \$30 per ton; prairie hay, \$15 to \$23; Kansas City—prairie hay, \$15 to \$21 per ton; alfalfa hay, standard, \$30 to \$32; timothy, \$21 to \$25; cash corn, \$1.45 to \$1.50.

CHICAGO BOARD OF TRADE QUOTATIONS

Articles	Close Nov. 3
Corn—	
December	\$1.37
January	1.32
May	1.31
July	1.30
Oats—	
December .....	.73
May .....	.77
Rye—	
December	1.41
May	1.49
Barley—	
December	1.37
May	1.34

HIDE MARKET CONSERVATIVE

STEADINESS characterized the hide market at the close of October, with extensive movements of packer hides during the third week of the month, selling at one cent a pound less than previous prices. Tanners are showing a tendency to hold back, seemingly agreed that present hide prices are too high, and realizing that their customers, the shoe manufacturers, are paying them only under protest. The following figures were quoted at Chicago during the week ending November 1, compared with the corresponding week a year ago, as recorded by *Hide and Leather*:

	1919	1918
Price per Pound (Cents)		
Spready steers.....	50-51	30
Heavy native steers.....	48	29
Heavy Texas steers.....	40	27
Light Texas steers.....	39-40	26
Colorados	38	26
Branded cows.....	39	22
Heavy native cows.....	47	27
Light native cows.....	45-48	23
Native bulls.....	40	20½
Branded bulls.....	33-34½	18½
Calfskins (country).....	70-85	30-40

MORE PORK FROM SOUTH

FIVE YEARS AGO Mississippi marketed only 7,600 head of hogs at St. Louis, indicative of the decidedly limited production of pork in that section. Four years later 99,761 hogs were shipped during the twelve months to the same central market, which is an accurate measure of the increase in popularity of pork production during that period. During the first three months of this year almost as many Mississippi hogs were exported from the state as were shipped out during the entire preceding year.

A superfluous clause in the new German constitution provides that a German shall not accept a title or a decoration from any foreign government.—*Albany Journal*.

TRADE REVIEW

TRANQUILLITY CHARACTERIZES LIVE-STOCK MARKET

BY JAMES E. POOLE

CHICAGO, ILL., November 1, 1919.

COMPARATIVE TRANQUILLITY EXISTS in commercial live-stock circles. A discordant note is piped in the swine camp, futile protest against the \$10 break in hogs within a twelve-week period apparently justifying inquiry as to the why and wherefore. Cattle trade has been in less need of the services of an apologist, having done a reasonably creditable performance; and, when the deluge of sheep and lambs is taken into the reckoning, that market has not been open to serious criticism. Suspension of the K-bill hearing has diverted the attention of the subsidized market-paper editors into other channels, and, if the carriers were not constantly harrowing the souls of live-stock shippers, a reasonable measure of contentment would obtain.

But beneath the surface the pot is boiling furiously. Feeders are nervous; everything in preparation for the shambles is in weak hands; a determination to keep the money invested intact, and get it back in the bank at the earliest possible moment, being general. This is responsible for a decidedly unhealthy condition, the menace of liquidation constantly hovering over the market. Commission men are as reluctant to make forecasts as a month ago, realizing that advising clients to hold their bovine, porcine, or ovine property is dangerous, while the country never has appreciated, and probably never will appreciate, admonition that lower prices are possible, let alone probable. Several dreams of the iridescent variety have vanished, one being the illusion that Europe would purchase meats for an indefinite period regardless of cost. That things go by contraries is indicated by an advancing cattle market in the face of almost complete paralysis of the steel industry.

Everybody knew that the hog market was riding for a fall, but a steady decline of approximately \$1 per cwt. weekly, with an occasional reaction for three months in succession, was not on the cards. Packers, who usually are as loquacious on the subject of price movements as an Egyptian mummy, emerged from their characteristic seclusion on this occasion to deplore the slump and advance various explanations, embracing the opportunity to lay the major part of the blame on the Federal Trade Commission; their myrmidons, journalistic and otherwise, taking their cue from this authoritative utterance. Evidently the research departments of the packing concerns, under whose auspices these explanations were concocted, did not dig deep enough, the real facts in the case being that, while hogs were declining 40 per cent in value, cost of product to the public either remained stationary or reacted from war levels but 10 to 15 per cent. This is one of the peculiarities of dressed-meat trade. Let hog, cattle, or sheep advance a few points, and the public is made aware of it in a few hours; but when declines occur, weeks and even months elapse before consumers are afforded an opportunity to realize the fact.

What effect the decline in hogs will have on the industry remains to be seen; certainly it will not afford incentive to increased breeding. In 1907, when packers hammered the common price down to \$4 at Chicago and in the West, where Dan Lively had been conducting a strenuous raise-more-hogs campaign, with such gratifying fruition that hogs were not worth the bristles on their backs, such a crimp was put in pork-making

that high levels were maintained for a decade. Such authorities as W. M. McFadden, of the *Poland-China Record*, and Robert Evans, of the Duroc Association, predict that a \$10 hog market will materially contract production, and a movement to reduce the number of sows to be bred for next spring by 10 per cent has been launched. While no market editor has even alluded to the fact, wherever hog-traders gather it is admitted that the summer market was artificially maintained to facilitate selling product at high prices; and, if killers are able to put prices up at their pleasure, it is equally logical to assume that they can put them down. Market history shows that the price pendulum invariably swings to an extreme in either direction, so that \$10 droves are possible. Having filled their cavernous cellars with cheap product, packers will naturally be disposed to enhance its value by the stereotyped method of marking hogs up. That practice has the sanction of long custom, and, while a few wrinkles may be injected, marked deviations from the rules of the game are not to be expected.

Cattle-feeders are still playing with fire. A Chicago banker recently showed me a note with a face value of approximately \$14,500, signed by an Illinois man, for seventy-four head of steers, contracted in a Wisconsin pasture for the purpose of crossing with corn fifty to sixty days. When the investment was made, values were advancing rapidly, inspiring feeders with that elusive hope that is the mainstay of the packing industry. A month hence, when those cattle return to market, probably to realize less than original cost, another disgruntled feeder will add his mite to the sum-total of protest at existing conditions; and until feeders and growers realize that competing with packers on fleshy steers is not only impracticable, but ruinous, such losses as have been scored during the past six months will continue. The elusive hope that such cattle will pay out has died before reaching the fruition stage so often that it is surprising sane, intelligent men give it a place in their reckoning.

During the past sixty days many cattle have left the primary markets that cost anywhere from \$12 to \$15 per cwt.—some as high as \$15.50—on which feeders must pay two shrinks, two commissions, and two freight bills. Thus handicapped, a profit in the finality of the transaction savors of the miraculous, the element of luck dominating the transaction. The investment, if the use of that dignified term is warranted, was inspired by an advancing fat-cattle market, due to a \$2 corn market insuring scarcity of heavy bullocks, of which the trade can always use a few regardless of cost; but, after the punishment administered such cattle from April until early in October, it is surprising that feeders would consider them. E. P. Hall, winner of several consecutive grand championships at the International Live Stock Exposition, discussing this matter recently, remarked: "It is possible to feed heavy steers profitably, but at rare intervals; as a regular business it spells ruin." Other expert opinion on the subject is confirmatory. It may be added that, when a furore over heavy cattle develops, sagacity invariably dictates letting them alone. Owners of the procession of fleshy cattle taken out of Kansas City, Omaha, and other markets during September and October are riding for a fall.

Subsidence of the heavy western cattle movement, swollen to abnormal volume by drought since early in July, is assured during November. The extent to which herds in the pastoral region have been depleted is the subject of many and widely varying "guesstimates," some of which deserve credence. Montana and Wyoming have been hit hardest, and will be confronted by a gigantic restocking proposition when nature relents. Sheepmen have fared better than cattle-raisers, as their flocks can winter on a short range that would mean starvation to cattle.

Range men who accepted the alternative of transferring stock to other grass during the drought now realize that taking the short cut to market would have conserved their cash

resources. While cattle and sheep were going through the process of acclimation, fighting flies, and getting accustomed to change of grass, they made little gains and suffered heavy mortality, especially in the cut-over areas of Michigan and Wisconsin, which had been industriously touted as places of refuge. Thousands of these cattle and sheep have shown up at Chicago, St. Paul, and other points actually in worse condition than on leaving home pastures, and, as prices had slipped meanwhile, loss was thereby aggravated. Some of the biggest outfits in the West fell into this error, as they were financially able to make the shift, while individuals were forced to go direct to market.

Packers have cleaned up substantially on the heavy summer run of western sheep and lambs. Pork was high, furnishing an outlet for relatively cheap lamb; and, as heavy mutton could not be sold during hot weather, packers complacently tucked it away in their coolers, in confidence that it can be vended at a substantial profit during the season of low temperatures. At the inception of the range season, when drought severity insured a prolonged period of glutted markets, Frank J. Hagenbarth, president of the National Wool Growers' Association, gave a hint to the packers that, as it was a foregone conclusion growers would lose money, they could not consistently claim or appropriate their pound of flesh, urging them to divide the loss. But if the facts were available—as they would be if the industry was under government regulation—there can be no doubt that this has been one of the most profitable seasons for the lamb, wool, and mutton departments of the packing business. Results cannot be determined, of course, until the summer accumulation in freezers has been cashed and accounts squared, but a \$7 to \$8 market for fat sheep, with a large proportion of the lamb crop selling at \$12 to \$14.50 per cwt., does not lend credence to packers' contention that they are handling live muttons at a loss, especially when wool and offal values are taken into the reckoning. Western wool-growers are more interested in the probable reception the 1920 clip will receive than in current market happenings, as the clip is out of first hands; but a vast quantity of farm-grown wool is still in the hands of pools formed last spring with the object of eliminating the rapacious middleman, the owners of which are displaying anxiety, suspecting a "job" on the part of the aforesaid middleman, who is naturally averse to losing a bird that has laid golden eggs for him since the infancy of the industry. Fine wools are scarce the world over, and are doubtless on a legitimate basis; but half-blood, or under, is not selling readily; consequently announcement that the British government is sending an initial shipment of 50,000 bales from Australia to Boston, to be followed by 30,000 bales monthly, is anything but reassuring. Wear-a-patch clubs, designed to promote conservation of old clothing, thereby curtailing consumption of wool, enormous use of substitutes, and other adverse influences, may combine to depress values.

The commission-house hay case has become a *cause celebre*. It has been—at least temporarily, probably permanently—disposed of by Judge Sanborn in the United States District Court, who decided in effect that Secretary Houston had no authority to require restitution by commission firms of alleged overcharges. As a matter of fact, the whole war-time license system as affecting stock-yard business was equally unwarranted, government lawyers having decided that the Secretary of Agriculture is without power to revoke such licenses; consequently issuance was mere camouflage. At that period, however, it was popular to snuggle up to the government, the very act implying patriotism. Money spent by the Department of Agriculture issuing licenses to commission houses and yard traders, auditing their books, and otherwise "butting in," as the trade now views it, was on a par with much other war-period expenditure, tantamount to throwing it to the little birds.

HEAVY INCREASE IN LOANS MARKS FINANCIAL SITUATION

BY SAMUEL SOSLAND

LOANS HAVE BEEN PILING UP with banks of the United States in the past two months so rapidly that there is now increasing discussion of the need for measures to check overexpansion. As a result of the heavy increases in loans, the supply of funds seeking investment in cattle and sheep paper is not so generous as a few months ago or last spring.

Live-stock operators, however, have obtained their credit requirements at no advances in rates. The heavy borrowers in Kansas City's territory have not been seeking loans in the same volume as a year ago, their demands being lighter. In the states which have absorbed the largest number of cattle and sheep moved in recent months from ranges, notably Iowa and Illinois, many feeders have been able to pay for their own investments, while Chicago has financed a liberal number of the extensive purchases. But the bulk of the feeding stock has been moving this season in smaller bunches to feeders in a position to pay for practically their entire purchases, or with the aid of their local banks.

Indicative of the changed position of the money market is the report that banks of the East are as a rule taking cattle and sheep paper only when offered by established connections of the West and Middle West. "We are receiving no mail or telegraphic inquiries for cattle loans from the banks of the East," commented the head of one of the leading cattle-loan companies of the Middle West. However, the Middle West, including Kansas and Missouri, has absorbed many cattle loans in the face of the seriously restricted movement of wheat on account of car shortage, which has kept millions of dollars from reaching banks of that territory. Many country banks in the Southwest have been forced to borrow instead of extending loans because of the inability of their communities to realize on their wheat.

According to this week's statements of the twelve banks of the Federal Reserve system, their combined loans aggregate \$2,522,902,000, compared with about \$2,178,000,000 at the opening of September. The ratio of gold reserves to net deposits and Federal Reserve note liabilities of the twelve banks has been reduced from 50.7 per cent around the opening of September to 47.9 per cent, which is the lowest figure in the history of the Federal Reserve system.

At Kansas City, where cattle financing usually reaches the largest volume, the Federal Reserve Bank reports the largest total of loans in its history—more than \$107,000,000. Of this total, \$35,000,000 or more is on cattle paper. The gold reserves of the Kansas City Federal Reserve Bank against net deposits and Federal Reserve note liabilities are only 41.8 per cent. The legal minimum requirements are 40 per cent against Federal Reserve notes and 35 per cent against net deposits.

It is plain that live-stock interests are not responsible for the overexpansion in loans. Borrowing on live stock in the Southwest, for example, would have been lighter than reported except for renewals of loans of last spring which have been made by an unusual number of stockmen who hesitate to take the enormous losses they now face on their summer grazing operations. Banks, too, have insisted upon unusually wide margins on live-stock loans. The great increases in loans in recent weeks at Kansas City are due to the abnormal car situation, and banks in the territory of this market are still counting on easier money conditions when more of the 1919 harvests are sold. The principal influence in overexpansion has been excessive speculation, especially in securities in New York and other markets. Demands of business enterprises

other than those of the live-stock industry have been heavy on the whole.

One of the possibilities of the changed money situation is an advance in the rediscount rates of the Federal Reserve Banks. At present cattle paper maturing in ninety-one days to six months can be discounted at these banks—if they are not already loaned up to their limit—at $5\frac{1}{4}$ to $5\frac{1}{2}$ per cent. An advance in the rates on such discounting, which involves indorsement of the paper by member banks, will, of course, serve to strengthen rates in the money market. But there are indications that the season of heavy financing of live-stock operations will have passed before an advance, if put into effect, is ordered.

In some banking circles it is believed that no advance in the rediscount rates of the Federal Reserve Banks will be made. Instead, it is expected that the Federal Reserve Board will continue to urge against continued borrowing by the member banks at the twelve institutions and their branches. Steps in this direction already have been taken.

OUR FOREIGN TRADE IN LIVE STOCK AND MEAT PRODUCTS

TABULATED BELOW will be found the total numbers of live stock exported from and imported into the United States during the month of August, and the eight months ending August, 1919 and 1918, together with the imports of meat products for the same periods. For our exports of meats see October PRODUCER, page 35:

LIVE STOCK

EXPORTS (Numbers)

Animals	August		Eight Months Ending August	
	1919	1918	1919	1918
Cattle.....	10,419	542	46,812	8,413
Hogs.....	413	393	15,103	7,993
Horses.....	1,985	6,056	11,765	40,201
Mules.....	279	2,176	3,756	10,518
Sheep.....	1,695	108	16,662	6,559

IMPORTS (Numbers)

Animals	August		Eight Months Ending August	
	1919	1918	1919	1918
Cattle.....	40,830	32,517	269,436	161,974
From United Kingdom.....			806	494
From Canada.....	39,502	27,525	206,288	74,924
From Mexico.....	1,176	4,992	61,719	84,549
From other countries.....	152		623	2,097
Hogs.....	741	725	18,814	1,630
Horses.....	229	358	3,253	3,155
Sheep.....	15,092	4,691	64,217	39,369

MEAT PRODUCTS

IMPORTS (Pounds)

Articles	August		Eight Months Ending August	
	1919	1918	1919	1918
Fresh—				
Beef and veal.....	3,055,116	1,640,867	25,003,957	8,497,212
Mutton and lamb.....	312,263		4,512,422	21,360
Pork.....	238,155		1,752,865	299,318
Total fresh meats.....	3,605,534	1,640,867	31,269,244	8,817,890
Prepared or preserved—				
Bacon and hams.....	6,667	61,125	2,117,103	170,151
Bologna sausage.....	511		14,575	2,460
All other.....	309,489	4,494,629	20,492,960	
Sausage casings.....	950,420	460,964	7,049,533	
Tallow.....	133,856	385,622	5,915,783	3,613,415
All other meat products.....	232,909	191,052	6,098,470	

*Beginning July 1.

LIVE STOCK AT STOCK-YARDS

SUBJOINED ARE TABLES showing receipts, shipments, and slaughter of live stock at sixty-six markets for the month of September, 1919, compared with September, 1918, and for the first nine months of 1919, compared with the same period last year:

RECEIPTS

	September		First Nine Months	
	1919	1918	1919	1918
Cattle.....	2,398,637	2,830,324	16,661,387	17,681,735
Hogs.....	2,416,012	2,404,287	32,965,470	31,631,296
Sheep.....	3,854,907	3,496,320	18,102,054	14,928,338

SHIPMENTS*

	September		First Nine Months	
	1919	1918	1919	1918
Cattle.....	1,776,794	1,848,430	10,071,583	10,235,380
Hogs.....	947,441	917,443	10,890,047	11,395,602
Sheep.....	3,997,969	3,336,818	10,238,052	10,655,619

*Includes stockers and feeders.

LOCAL SLAUGHTER

	September		First Nine Months	
	1919	1918	1919	1918
Cattle.....	1,197,602	1,537,500	9,702,833	10,595,780
Hogs.....	1,533,257	1,584,026	22,501,386	20,815,550
Sheep.....	1,353,310	1,198,200	8,774,398	7,021,436

EXPORTS OF MEAT PRODUCTS IN SEPTEMBER

THE FOLLOWING TABLES, compiled by the Bureau of Foreign and Domestic Commerce, show the exports of meat products from the United States for September, 1919, compared with September, 1918, and for the nine months ended September, 1919, compared with the same period last year:

BEEF PRODUCTS (Pounds)

Classification	September		Nine Months Ended September	
	1919	1918	1919	1918
Beef, canned.....	1,214,000	7,350,000	48,855,000	110,358,000
Beef, fresh.....	7,286,000	34,061,000	121,578,000	390,895,000
Beef, pickled, etc.....	3,524,000	3,020,000	33,161,000	30,378,000
Beef oil.....	6,694,000	4,581,000	55,640,000	60,691,000
Totals.....	18,718,000	49,012,000	259,234,000	592,322,000

PORK PRODUCTS (Pounds)

Classification	September		Nine Months Ended September	
	1919	1918	1919	1918
Bacon.....	57,180,000	41,540,000	1,009,534,000	847,357,000
Hams and shoulders.....	18,209,000	36,191,000	551,176,000	452,716,000
Lard.....	36,960,000	33,280,000	614,069,000	437,783,000
Neutral lard.....	1,446,000	122,000	20,159,000	6,089,000
Pork, pickled.....	2,792,000	2,925,000	21,279,000	29,779,000
Lard compounds.....	5,186,000	1,959,000	116,611,000	19,459,000
Totals.....	121,773,000	116,005,000	2,332,828,000	1,793,183,000

If Mexico could only be made safe, it might become a great winter resort for Americans. And then the Mexican bandits could become hotelkeepers.—*Long Island City Star*

FOREIGN

ENGLISH LIVE-STOCK LETTER

BY JOSEPH RAYMOND

[Special Correspondence to The Producer]

LONDON, September 25, 1919.

IT IS DIFFICULT to see that anything else than a combination of awkwardness in governmental management and misfortune as regards marine-tonnage organization can be responsible for the temporary difficulties experienced in meat supplies in different parts of the United Kingdom. "Meat shortage" has for months past been the cry, but nobody believes it in face of the fact that the cold stores are crammed full of frozen meat, while huge cargoes of the same class of meat have still to arrive, and cattle-fatteners at home are apparently only temporarily going easy in the marketing of their animals. There is some reason for the latter policy, as the live-weight price increase under the new schedule of maximum rates does not begin to take effect to any appreciable extent until mid-November.

It is not anticipated that there will be much improvement in the general supplies of fat cattle for some little time yet, although there is already more vim in the buying of two-year-old store cattle that are likely to be ready for December and January markets. The maximum price for first-grade bullocks occurs on May 17, 1920, and will be \$23.12 per cwt., and that of first-grade fat cows will be \$22.17; the rate for second- and third-grade cows, respectively, then being \$19.95 and \$17.75 per cwt.

Fat-sheep supplies have also been light, but fatteners seem to be of opinion that the markets of next spring will be remunerative. The maximum price for sheep of good marketable quality is dated for April 5 next, when the live price will be 35.4 cents per pound, on an estimated dead-weight, the seller also taking the value of the skin.

By virtue of the food situation, special interest attaches to the preliminary statement of the English live-stock census returns for 1919, which is just issued, based on figures collected on June 4 last. The following is a brief tabulation of the total live stock returned for England and Wales:

	1919	1918
Cattle	6,194,590	6,200,490
Sheep	15,123,220	16,475,180
Swine	1,799,560	1,697,070

It will be seen that the total number of cattle has been fairly well maintained. Dairy stock, however, shows a small decline.

The most serious feature is the continued fall in the number of sheep. These have been decreasing ever since the bad summer of 1911, when flocks were heavily reduced by drought. The position of sheep-farming is felt to be very unsatisfactory. The falling-off in sheep is not entirely the result of voluntary action or of economic influences. There have been periods of food scarcity almost every year since 1911, with the result that the fall of lambs has been restricted in number or injured in quality.

The influence on our flocks and herds of the present government grading system is of importance. There is much in this needing reform, and it may be said that sheep are more prejudicially affected by the present system than any other class of animal. Pigs and cattle are sold by weight, the latter

after being graded, but sheep are valued exclusively by inspection, and cases have come to light in which the estimated killing value has been greatly underrated. Flock-masters are frankly dissatisfied with the arrangements made for the sale of sheep. The farmer suggests that the sheep should either be weighed, and values adjusted accordingly, or co-operative slaughter-houses should be provided where the producer could be assured of payment corresponding to the worth of his stock.

The total value of the August exports from Great Britain of pedigree live stock, \$1,137,000, added to that of the seven previous months of the current year, brings up the result of this year's export demand to \$4,182,000, or 55.46 per cent above the corresponding total in 1918. Of pedigree cattle no less than 916 were exported, valued at about \$440 per head on average. This was a record, with the exception of August, 1895, when the largest number for any single month during the past twenty-five years were shipped—namely, 1,179 head, at an average value of about \$83.

The position of the dairy herds of England and Wales, as revealed in the current statistics, has a direct bearing on the milk shortage experienced for some time past, and may be felt more keenly this winter. The milk supply of the country has never been adequate to its needs. For forty years the production of milk has not kept pace with the growth of the population. Before the war England had fewer cows to the hundred acres than any other country in Europe except France. The supply is deficient both in quantity and in quality, and the methods of distribution leave much to be desired. It is hoped that the milk prices now fixed will stimulate the English dairy farmer to increased production, in spite of the prices of feed being so high. The Ministry of Food's scale of maximum prices for milk for the next seven months shows an average of 68 cents per gallon. It should be noted that the average retail price for the same period is 94 cents, which leaves a margin of 26 cents per gallon to cover distribution.

GOVERNMENT OF GREAT BRITAIN TO CONTROL IMPORTED MEAT

A CABLEGRAM from London, dated October 7, 1919, announces that the British Food Controller has issued an order, effective October 2, requiring all imported meat to be placed at his disposal, and, if necessary, to be delivered to him. Importers are required to furnish information regarding any shipments expected after October 2. Pending any action by the Food Controller with regard to the requisitioning of imported meat, importers have been instructed to continue the storage of meat according to their usual custom.

The Food Controller has sent a buying commission to the United States to make purchases of bacon. Since the resumption of the 1919 order, pork products have been handled through the Associated Meat Importers' Committee. The Food Controller has now taken over the outstanding contracts of that committee, and is making his own distribution through the extensive machinery of the government. The wholesaler distributes the goods to the retailer, whose allotment is determined by the number of individual ration cards on his books.

UNITED KINGDOM IMPORTING LARGE QUANTITIES OF WOOL

IMPORTS OF WOOL into the United Kingdom this year have been on a colossal scale, according to the *Wool Record and Textile World* for August 14. During the seven-month period January-July, 2,117,690 bales of foreign wool were imported. Of these, 99,260 bales were re-exported, leaving a balance of 2,018,430 bales on hand August 1.

MEAT PROSPECTS IN ENGLAND

AT THE CLOSE OF SEPTEMBER practically all the leading papers of the United Kingdom contained an item to the effect that, in the opinion of H. Adams, president of the Union of London Retail Meat Traders, the winter meat shortage foretold some time ago will not be felt until the New Year, and the public has no occasion to worry for the present. The long spells of hot weather had lessened the demand for meat, and had thus improved stocks; but, apart from that, there was no real shortage, and would not be this side of Christmas. The suggestion that a shortage existed had reference only to home-killed meat. Supplies at present were ample to meet all demands, though 75 per cent of the meat was imported. Within a month, however, the grass season would be over, and all beasts not kept for winter stock would be forced on to the market, and home-killed meat would be plentiful until the New Year. "After Christmas," said Mr. Adams, "I am afraid the shortage will grow acute. Farmers say it is not worth while feeding stock through the winter, so that home supplies must be short, and we anticipate a big increase in the continental demand for imported meat, which will considerably deplete our own markets."

ENGLISH RETAIL MEAT PRICES

A COMPARISON of the average retail prices of various meat products in the United Kingdom in July, 1914, and August, 1919, has been made by the Bureau of Markets, as follows:

Article	Average Price		Increase (Per Cent.)
	July, 1914	Aug., 1919	
Beef, British—			
Ribs.....	\$0.198	\$0.365	84
Thin flank.....	.132	.264	100
Beef, chilled or frozen—			
Ribs.....	.147	.304	107
Thin flank.....	.096	.198	106
Mutton, British—			
Legs.....	.208	.385	85
Breast.....	.132	.233	77
Mutton, frozen—			
Legs.....	.137	.324	137
Breast.....	.081	.162	100
Bacon, streaky.....	.228	.568	149

BRITISH DISLIKE AMERICAN BACON

REPORTS HAVE BEEN RECEIVED from various sources relative to the dislike of American bacon by British consumers. The prevailing opinion has been to the effect that American bacon became rancid, either through improper curing or by being held in storage too long.

Another view is presented by H. S. Arkell, Live-Stock Commissioner of Canada, who investigated the possibilities of the bacon market in Europe last spring. According to Mr. Arkell, the American product was purchased by the Allied Purchasing Commission during the war period to the extent of the available supply—fat bacon and lean bacon at practically the same prices. Further, the Americans used the dry-salt cure, and, in view of the necessity of preserving the bacon for indefinite periods, they used a great deal more salt in the cure than is desirable or necessary for ordinary purposes. Under control, therefore, the British consumer was obliged to buy and eat American fat bacon so salty that it was almost unpalatable. Great Britain still has stocks of American bacon on hand—an unsatisfactory and partially unmarketable article.

Mr. Arkell says that the Wiltshire type of bacon—lean and cured in brine—is preferred in the United Kingdom.

CONDITIONS PRECARIOUS FOR AMERICAN MEATS IN FRANCE

THE FOLLOWING EXCERPT from a report of the American ambassador to France to the Department of State, dated August 23, 1919, indicates that the measures taken by the French government to meet the food crisis have had a serious effect on the business of American packing-houses:

"The packers claim that the prices on meat products specified as 'normal' are actually below their costs. They claim that the prices fixed for the present trade are based on prices of some of the army stocks now in liquidation. They are compelled to demand far higher prices than 'normal' prices, and in consequence find the market for their goods in France very restricted. While the so-called prices are not maximum prices, in effect they work out as such. The wholesalers and retailers, in the face of published official lists of 'normal' prices, can hardly offer meats for sale at prices substantially higher, or even double those prices. Accordingly they do not buy. Several of the American packers find themselves with stocks of smoked meat, and meats in brine, for which, under the circumstances, there is no French market. One of the packers reports that considerable stocks of smoked and salted meats have already deteriorated, so that they have to be thrown away or reworked. To meet the situation, the packers have applied for export licenses, but their license applications have been refused. One of the packers brought in meat and put it in bonded warehouses in the ports with a view to re-exporting, but export permits have been refused even for these products. It was reported also that another packer had made a big sale in France during the week at a very heavy loss, in order to dispose of products for which export licenses could not be obtained, and which would otherwise have been a total loss."

LIVE-STOCK AND MEAT CONDITIONS IN ITALY

IN THEIR FOURTH REPORT to the Department of Agriculture on live-stock conditions in Europe, Commissioners Bell and Wright review the situation in Italy. Italy lacks live stock, meat, and dairy products in considerable quantities, but is planning to improve the situation as rapidly as possible. The measures adopted include importations of frozen and cured meats, and, if necessary, of live cattle for slaughter, since the cold-storage space is limited. Restrictions on slaughter also have been in force, but their removal is being considered.

It is estimated that the needs of Italy for meat from outside sources will be about 20,000 tons a month for the remainder of the present year. The policy of the government probably will be to encourage the importation of as much of this amount as exchange and credit arrangements will permit, in order to give the herds of meat animals a chance to increase.

The most serious shortage is in cattle, the number of which not only declined during the war, but has been further reduced by a serious outbreak of foot-and-mouth disease, which is still quite prevalent in some sections. According to official figures, the decline in the number of cattle (including buffaloes) in the kingdom between 1914 and 1918 was 920,312 head, or 13 per cent; of horses, asses, and mules, 179,122 head, or 8 per cent; of swine, 384,696 head, or 14 per cent. In sheep and goats (which are counted together in Italy) there was an estimated increase during the period stated of approximately a million head, or 7 per cent. This increase is partially accounted for by a greater acreage in grass land.

The cattle situation, the report points out, cannot be judged accurately from the percentage of decline in the number of animals, since the decrease of grown cattle was much greater than 13 per cent. Estimates for 1918 place the decrease in that class at more than 20 per cent. The damage to beef and dairy production is even greater, owing to the reduction in flesh and in milk-flow of cattle caused by foot-and-mouth disease and shortage of feed. To restore the herds to pre-war size and condition will, in the opinion of the commissioners, require from five to seven years.

Cattle-owners in Italy, especially in the northern part, consider the Swiss breeds best adapted for their requirements; but little interest was shown in importing cattle for breeding purposes. Italian farmers generally had only a limited knowledge of the various breeds of cattle raised in the United States. Members of the Co-operative Producers' Society of Rome showed interest in the possibility of obtaining breeding stock from the United States.

Meats of all kinds, especially beef, were obtainable with difficulty. Stores, restaurants, and hotels had only limited quantities, and the beef seen was of poor quality. The number of cattle permitted to be slaughtered for civilian consumption has been restricted to a maximum of about 50,000 a month, army needs being considered first.

Although at present there is considerable demand among the poorer classes in Italy for horse meat, the permanency of any trade in that product from other countries is questioned because of a natural prejudice against horse meat, as well as against frozen meat in general.

LIVE STOCK IN BELGIUM

STILL SERIOUS as is the live-stock situation in Belgium, an optimistic feeling prevails regarding the future of the industry. There naturally has been a big reduction in all classes of stock, but the farmers have resolutely set about restoring their herds, and hope to accomplish this in a comparatively few years.

From 1913 to 1919, according to official figures, the number of cattle in Belgium declined from 1,849,484 to 898,892—a falling off of more than 50 per cent. Of these the Germans took more than one-half. The loss is being in part made up by importation of milch-cows from Holland. In addition, the Peace Treaty provides that Germany is to deliver to the Belgian government 2,000 bulls, 50,000 milch-cows, and 40,000 heifers. Until the herds are fully restored, meats and live animals for slaughter will be imported in larger quantities than before the war. The United States, Canada, and Argentina are looked to for this supply. Refrigeration facilities are being provided at Antwerp for handling 2,000 tons of frozen meat a month.

Of 1,412,293 swine in Belgium in 1913, the total loss was 1,093,799, of which the Germans took more than 250,000. Germany is to deliver 15,000 sows. Large quantities of pork and pork products will have to be imported.

Horses show a decline of nearly 100,000 head—more than one-third of the whole number in the country in 1913. Of these the Germans got over 90 per cent. Part of this loss they are obliged, under the peace terms, to make good.

These facts are brought out in the fifth of the series of reports on live-stock conditions in Europe by representatives of the Department of Agriculture.

LIVE-STOCK CENSUS IN PRUSSIA

ACCORDING to a live-stock census taken in Prussia during the current year, there are now 4,644,000 hogs in that part of Germany, as compared with 3,308,000 the year previous. The normal number before the war, however, was about 16,000,000. There are thus less than one-third as many hogs in Prussia as there should be, and it will evidently take at least one year, and possibly two or three years, to restore the normal hog population.

The situation with respect to cattle is far better. In 1919 the total number of cattle was 9,000,000, as compared with 10,000,000 the year before, and a normal pre-war number of about 12,000,000. The greatest decrease seems to be in young stock other than heifers. The number of heifers seems to have been remarkably well maintained, in view of the discouraging conditions prevailing in Prussia.

MEAT SITUATION IN GERMANY AND AUSTRIA

THE BUTCHERS' ASSOCIATION of Berlin has formed a stock company which will handle all meat imports for the members, as well as the cold storage end of the business, we learn from a correspondent to the *National Provisioner*, writing on September 20. Plans are being made for a colossal expansion of the business. That the handling of all the imports of meat from foreign countries should have been intrusted to the private initiative of the meat industry by a government committed to socialization is accepted as a compliment to the business acumen of the butchers, who will be expected to handle most, if not all, of the meat imports to be brought into Germany under a new appropriation of some three billion marks which the government will ask for the purpose of reducing the cost of living.

Three months ago, when the government began to spend the first three billion marks in an attempt to force down the high price of food and other necessities, government theorists thought they could do better than trained butchers. Those billions have been spent, and a second appropriation of a similar amount will now be asked for. But this time the butchers and packers will have their say about the spending of the money. It is admitted that the butchers will succeed in buying cheaper meat, and selling it more cheaply to the consumer, besides making a reasonable profit for themselves.

The Butchers' Association is putting up a credit of six million marks on its own hook, for the purpose of facilitating buying in foreign markets. It is, furthermore, to regulate the slaughtering of animals for the cold-storage plants. The trade experts will decide when and how many of a particular animal are to be killed and placed in storage.

The enlargement of the trade corporation is considered a symptomatic development of the meat trade in Germany, where state and municipal slaughter-houses tended to preclude the organization of a private meat enterprise on a large scale. The new corporation seems to be the pioneer in a new field of economic departure. The stockholders are entitled to buy two-thirds of the new stock, to be issued at 110, while one million marks' worth will be sold to the public at 120.

The meat card and the list of customers, confining the consumer to but one meat market, which he may select, are still necessary parts of the rationing system, and will have to be retained indefinitely. In the occupied territory along the Rhine, where both had been abolished or ignored, they have just been reintroduced. The necessity of this measure shows that there is still a deficient supply of meat.

In Austria, for the first time in years, fresh pork is being distributed, according to Vienna papers. Each consumer whose name is on the list is entitled to a quarter of a pound per week. The following maximum prices for beef have been fixed by the authorities: domestic, called "standard meat"—fore quarter, \$1.08 a pound; hind quarter, \$1.40; roasts, \$2; imported meat—fore quarter, \$3.60; hind quarter, \$3.80; roasts, \$4.60 a pound. These prices, based on a par value of 20 cents for the Austrian crown, strikingly show the depreciation of the currency of that country.

The price of foreign meat has not been raised since early in July. The advance in the price of domestic roasts is explained as a measure to keep down, in proportion, the price of the fore quarters—the cheapest kind of meat which the poor can buy.

Early in August the people of Vienna were cut off from American fats and pork, for financial reasons. Since then the matter has been adjusted, new credits have been established, and American pork is coming in again whenever the strikes and other disturbances make transportation possible.

LIVE-STOCK INTERESTS IN AUSTRALIA

BY A. C. MILLS

[Special Correspondence to The Producer]

MELBOURNE, AUSTRALIA, October 6, 1919.

SEASONAL CONDITIONS continue unsatisfactory over a good deal of Australia. Most of inland New South Wales, Queensland, and the far north and northwest are dry, and the outlook for the summer is bad. Rains even now would do much to save the situation, but they must come soon and be really heavy. So far the losses have probably not been great, as there is still dry feed available in localities, and in other cases stock is being moved to the coast or hills, where conditions are not so bad. Moderate rains were recorded in Victoria and the southern parts of South and Western Australia early in September. These did a world of good; only, unfortunately, they have been followed by warm winds that have rather dried things up. Still the south of the continent is fairly right for the time being. Conditions in New Zealand are rather backward, owing to the prevalence of cold winds.

The uncertainty of the season is reflected in the live-stock markets. The stud cattle and Longwool sheep sales held in connection with the Victorian Royal-Agricultural Show at the end of September were disappointing, and a number of animals were passed in for lack of bids. The top price in the cattle section was \$1,260 given for a Shorthorn heifer, and a couple of bulls went for \$1,150—very poor prices considering the quality. Fat-stock values are kept more or less stable by the frozen-meat trade. Exporters have lately been buying strongly in the markets, and rates for freezing lines do not show the same weakness as stores. On the Melbourne market prime, shorn, cross-bred wethers are worth about \$7.25, and ewes \$6.50. Spring lambs, good stuff, are fetching in the region of \$6. Prime bullocks are selling for about \$150 per head, but that is solely for local consumption. Exporters cannot pay anything like that figure.

The live-stock census being completed in most of the states, a comparison of the totals for the last three years may be of interest:

	Cattle	Sheep
Australia—		
1917.....	10,130,000	73,314,000
1918.....	11,337,000	82,654,000
1919.....	12,349,000	86,660,000
New Zealand—		
1917.....	2,575,000	25,270,000
1918.....	2,888,000	26,538,000
1919.....	3,022,000	25,829,000

The current year's figures are subject to some adjustment, but are close enough to give a good idea of the stock in Australasia at the beginning of 1919. As far as the Commonwealth is concerned, it is pretty certain that the present rate of increase cannot be maintained this season. The drought in New South Wales and Queensland is responsible for losses, and the lambing over large districts there has been poor. Also the export of frozen meat and lamb this year promises to be much heavier than in 1918 or 1917. On the other hand, the lamb crop in the State of Victoria, just finished, is probably the best ever experienced, and, generally speaking, the natural increase right through the south has been satisfactory. This will to some extent balance the losses in the more northern parts.

The Australian beef season has practically closed, as far as killing is concerned, but there is still a good deal of meat in cool store in the north waiting shipment. Most of the freezing works in the south are now busy treating sheep and lambs for export, and large numbers are being put through each week. The season in New South Wales will probably be short, owing to the dry condition of the country. In Victoria and South Australia a very heavy killing is anticipated between now and

the end of the year, provided sufficient shipping can be obtained to keep the cold-storage chambers clear. At the moment they are congested, but boats to lift 40,000 tons of frozen produce are promised for this month (October), and, if a reasonable amount of freight is available in November and December, the meat companies should be able to get on fairly well. Apart from mutton, lamb, and beef, there is a tremendous accumulation of frozen rabbits, butter, cheese, and sundries to be shipped.

Australian meat-exporters are operating rather in the dark. It is assumed that the stock now being killed will be bought by the British government, but on what basis has not yet been decided. Negotiations are proceeding for the termination of the old contract and establishment of a new agreement. A conference of grazers and meat-exporters was held in Sydney a fortnight ago to discuss this matter. It was then decided to apply to the home authorities for a substantial advance on the present f. o. b. rate—10¼ cents per pound for mutton, 12¼ cents per pound for lamb, and 9¼ cents per pound for frozen beef. As explained in an article that appeared in last issue, grazers feel that, now the war is over, they are justified in asking at least as much per pound for their product as was paid by the British government for Argentine meat. The negotiations have been placed in the hands of the Prime Minister. It is understood that the rate asked is based on the South American price, due allowance being made for the difference in freight charges. This works out in the region of 16 cents per pound for mutton and lamb, and 14 cents per pound for beef, f. o. b.

The contracts for the supply of New Zealand's surplus meat to Great Britain run to June 30, 1920. Proposals have been made that they should be extended to June, 1921, provided amended and higher rates can be obtained. It is proposed to send a deputation, containing representatives of producers, freezing companies, and one government official, to England to lay the views of New Zealanders before the home government. One sore point with New Zealand—and Australia, too, for that matter—is that their meat is pooled with American meat when offered for civilian sale in Great Britain. For one thing, it is felt that the Australasian article is losing its identity by this practice, and cables have been sent to the High Commissioner requesting him to enter a vigorous protest. Whether it has borne fruit is not known. It is estimated that there will be 5,000,000 freight carcasses of mutton and lamb in New Zealand at the end of October. The killing season opens in November, and even under the most favorable circumstances probably more than 4,000,000 will be in store on December 31, 1920.

Trade returns for the past twelve months show a very satisfactory increase as compared with the figures for the preceding year. Exclusive of gold, information about which cannot be disclosed, the total exports from Australia for the year ending June 30, 1919, were valued at, roughly, \$534,000,000, as against \$376,000,000 to June 30, 1918. The imports for 1918-19 are given as \$468,000,000, compared with \$305,000,000. It appears from the returns that the balance of trade in favor of the Commonwealth last year was \$66,000,000; and to that must be added a pretty considerable amount of gold. Primary products figure most prominently in the exports. For instance, the value of wool shipped is put down at \$214,000,000; wheat and flour account for \$86,000,000; meat, frozen and preserved, \$47,000,000; and tallow, hides, and skins, \$33,000,000. The value of manufactured articles is hardly worth mentioning. It is economically wrong that the vast wealth of raw material of a staple article like wool should be exported practically as it comes from off the sheep (less than a quarter was even scoured), and, apart from \$5,000,000 worth of tops, the rest was shipped in the grease. Some day we may see Australia as a huge manufacturing country, but I fear that day is far distant.

In common with other countries, there has been much complaining as to the cost of living on this side since the war. There is the usual cry of profiteers, and quite a number of commissions have been appointed by the different state governments to hunt them down. It is remarkable, though, that when they come to hard facts these commissions find it impossible to say who is profiteering; at least that has been the experience so far. The man in the street who is obliged to pay \$60 for a sack suit which he knows contains only \$6 worth of raw wool, has a fair idea; but then he, poor beggar, has no redress except to grumble. The same applies to the housewife who purchases a leg of mutton at 20 cents per pound which was bought on the hoof the previous day at 10 cents, or less, the butcher getting the skin. People living on small fixed salaries find it very hard to make ends meet, and there are not wanting demagogues who preach prohibition of exports of primary products until prices are brought down. Needless to add, these preachers are not producers, nor have they any following among that class. Another popular panacea is to fix the price of food-stuffs. Obviously the rate so fixed must be in favor of the consumer, and consequently at the expense of the producer. It is a pious wish of many that one of the commissions now sitting may evolve a scheme that will be just to both producer and consumer, and perchance hit the comfortable middleman hard below the belt.

The announcement that the British authorities have arranged for direct shipment to Boston of 50,000 bales of Australian and New Zealand wool comes as a relief to growers. Doubtless the news will also be welcomed by manufacturers in the United States, whatever sheepmen may think. A bale equals approximately 340 pounds, so the shipments will equal about 17,000,000 pounds. Taking into consideration the carry-over from last year, and allowing for local consumption, Australia alone will have an exportable surplus of over 3,000,000 bales during the twelve months ending June 30, 1920. This will all belong to the imperial government under its war purchase scheme. Manifestly the British mills cannot absorb anything like the available quantity, and another outlet is so much to the good. Growers are anxious to see as much as possible shipped before the 1920-21 clip begins to come to hand. They hope for a free market then; but it will be of little benefit to them if a large quantity of wool owned by the imperial government is still lying in the country.

The annual report of the Department of Imperial Supplies—the body that controls the wool scheme in New Zealand—for the season 1918-19 has recently come out. A total of 567,379 bales, with a net weight of 205,371,286 pounds, was bought by the British government or local woolen mills during the past twelve months. The value received by growers is \$65,250,000. It appears that, acting under instructions from the British government, 20,676 bales of 1917-18 and 59,635 bales of 1918-19 wool were set aside for the United States during the year, of which some 44,373 bales had been shipped on June 30. It is not explained whether the unshipped balance is included in the 50,000 bales mentioned above, or is additional.

AUSTRALIAN WHEAT PROSPECTS UNFAVORABLE

[Rosenbaum Review]

AUSTRALIANS SOW WHEAT in May and June, and harvest in January. We are just in receipt of the first reliable and authentic information we have been able to get on the wheat situation in that country. Our correspondent reports extremely unfavorable weather conditions throughout the Commonwealth. The acreage which was sown to wheat this year is about the same as last, but the prospects for the

present crop approximate only 60,000,000 bushels, which will not leave more than an exportable surplus of 10,000,000 bushels on the present growing crop.

Australia has produced and exported during the past ten years the following amounts of wheat:

	Crop (Bushels)	Exports (Bushels)
1919.....	80,835,000	.....
1918.....	114,866,000	12,832,000
1917.....	152,420,000	43,782,000
1916.....	121,679,000	51,292,000
1915.....	170,000,000	55,910,000
1914.....	25,281,000	772,000
1913.....	106,249,000	54,586,000
1912.....	94,210,000	55,056,000
1911.....	72,000,000	40,464,000
1910.....	68,000,000	35,022,000
1909.....	62,320,000	41,524,000

It seems rather remarkable to us that the acreage this year is as large as last in Australia, because the grower has been getting less than one dollar per bushel for his wheat. In fact, he must have been growing it at a loss during the entire war, when one considers the increased cost of everything, including farm machinery.

The present surplus of wheat in Australia has been sold to the British government for about \$1.37 per bushel, on the basis of the pre-war value of the shilling, the actual price being 5s. 6d. Practically all the surplus, it seems, will be shipped out by next January or February; and, as the Commonwealth will need 50,000,000 bushels for seed and local consumption, and the present surplus is about 13,000,000 bushels, with the prospects for a total crop to be harvested in January of only 60,000,000 bushels, it does not seem that the wheat conditions in Australia are any too favorable at the present time.

BRAZIL'S HIDE EXPORTS

THE BRITISH CHAMBER OF COMMERCE of Sao Paulo and Southern Brazil has issued a report on trade conditions in that country, from which we glean the following facts: Brazil ranks second in importance among the South American nations supplying hides to the European market. Argentina occupies the first position. Brazil's annual exports of hides are enormous, as will be observed from the following statistics representing quantities shipped during the last four years:

Year	Pounds
1915.....	101,376,368
1916.....	117,925,020
1917.....	87,906,048
1918.....	100,467,136

Before the war Brazil's principal customer for hides was Germany. Since the war, however, Great Britain and Italy have been the chief buyers. In 1918 the destinations of shipments were as follows:

Destination	Pounds
Argentina.....	1,957,733
United States.....	14,123,826
France.....	10,614,040
Great Britain.....	18,408,673
Italy.....	19,495,637
Portugal.....	2,932,728
Uruguay.....	23,884,261

The classes of hides exported during 1918 were as follows:

Class	Pounds
Horse hides.....	51,592
Tanned and sole leather.....	354,866
Wet salted ox hides.....	77,295,129
Dry ox hides.....	14,290,557

INDIA ABOLISHES TAX ON HIDE EXPORTS

ANNOUNCEMENT IS MADE that the Indian government has abolished the export duty on hides and skins.

ARGENTINE LIVE STOCK

BY ANDREW EWART

[Special Correspondence to The Producer]

BUENOS AIRES, ARGENTINA, September 29, 1919.

EXCEPTIONAL FLOODS have been experienced over a great part of the southern portion of the province of Buenos Aires, and very serious damage has been caused to agricultural and pastoral interests. Considerable numbers of sheep and cattle have been lost, while heavy damage to breeding stock has been done in many cases through forcing it over long stretches of soft ground in order to reach a place of safety. The principal rivers still continue very high, and many of the low districts have been flooded.

Outbreaks of foot-and-mouth disease have been very general, and in a most virulent form, causing many deaths among all classes of live stock in the camp.

The heavy arrivals of cattle on the local cattle market caused values for poorer-quality animals to recede, though all firm-quality cattle have maintained their price, which is 37 to 38 cents (Argentine paper) per pound dressed beef. Fat cattle are generally scarce, and, with the improved export shipping facilities, values are likely to continue firm, and possibly rise slightly in the future. Sheep are also experiencing a good inquiry, and animals with well-wooled skins are selling at very high prices.

The Palermo show, recently held, is the most important event of its kind in South America, and yearly attracts large entries of Argentina's grand-quality live stock. Formerly some of the classes contained nearly three hundred entries, but this year for the first time they had been subdivided into lots of fifty bulls, which has proved to be a better method.

The sales were opened with the Herefords, when a very good attendance of buyers came forward, though the enthusiasm of last year was wanting, when the champion of this breed made the high figure of \$50,000 to cross the river to Uruguay. This year's champion realized \$20,000, while the reserve made \$28,000; both being acquired by the same Uruguayan buyer. The sales of Herefords were somewhat disappointing, considering the high prices ruling in England, and also for imported bulls of this breed at Montevideo. The champion Aberdeen-Angus sold for \$15,000—the highest price that has yet been paid at auction for any animal of this breed in this country. The great event of the show is the sale of the Shorthorn champion. The interest this year was possibly greater than ever. At \$100,000 Eduardo Healy was declared the purchaser of this year's champion—a record price for this show.

It is said that some of the North American freezing companies are acquiring cattle-feeding properties, following the lead taken by Vestey Brothers, who, besides their freezing works and shipping interests, also rent a great extension of alfalfa camp to be utilized in feeding steers.

ARGENTINE PACKING PLANT TO COMPETE WITH AMERICANS

THE ARGENTINE RURAL SOCIETY has decided to establish a new meat-freezing company, a line of refrigerated steamers, and a pastoral bank, with Argentine capital, the combined enterprise to be run on co-operative lines. Cold-storage depots in foreign markets, to which products will be exported, are also planned. This step, it is announced, is taken in order to counteract the tendency of the Argentine meat industry to be monopolized by foreign capital, the dividends on the business now largely going to the United States, where five of the largest establishments are owned.

CANADIAN LIVE-STOCK NOTES

BY H. S. ARKELL

Dominion Live-Stock Commissioner

THE DISTRICTS from which the greatest numbers of live stock are regularly shipped to market are those which have suffered least from drought this year. This fact was clearly established by the recent survey of live-stock conditions in Canada.

A strong financial group in Montreal is organizing to engage in the exportation of Canadian live stock to Great Britain. The Live-Stock Branch has been in consultation with gentlemen connected with this organization for some time, but matters have now taken a definite turn as the result of an interview just held between representatives of the company and of the department. It has been clearly demonstrated that Canada has been making very slow progress, as compared with the United States, in developing this trade. The reason is to be found not only in the disparity of rates between Canadian and American ports, but as well in the lack of centralization in the management of the business in Canada. Competing firms in the Canadian boot and shoe trade early adopted the plan of pooling their interests in their efforts to secure foreign contracts, and experience has justified the plan. The department is convinced that similar methods must be employed, under present circumstances, by live-stock shippers, if our export trade is to become a success. The inherent difficulties of the business are driving certain firms from the field, and have discouraged others from making a start. Further, competition for contracts becomes in the end an expensive affair, and competition for space has resulted in the raising of rates to an almost prohibitive level. It is now recognized as sound tactics that operations must be on a comparatively large scale, if contracts are to be secured at all, if losses are to be reduced to a minimum, if space is to be obtained at reasonable rates, and if competent management is to be introduced into all phases of the business, including buying, feeding, shipping, selling, etc., and into the very important arrangements pertaining to finance, veterinary service, and inspection. The centralization of the trade, and its systematic organization on this basis, now seem to be imperative, if Canada is to secure her fair share of European business. To this end, a movement is now on foot to draw together the various interests, such that operations may be undertaken in accordance with a concerted plan. Letters are being addressed to the various farmers' organizations, including the United Grain Growers and the United Farmers of Alberta and Ontario. There is good reason to believe that by next spring considerable business will offer. Unless practical preparations are got well under way now, Canada will not be able to take advantage of it.

CANADIAN MEAT-PACKERS ORGANIZING

EMULATING THE EXAMPLE of their colleagues across the border, Canadian meat-packers have recently organized the "Industrial and Development Council of Canadian Meat-Packers." This counterpart of our own "Institute of American Meat-Packers" is to have headquarters at Toronto. Its object will be to "endeavor to promote a better understanding between producer, packer, and consumer, as well as defend themselves from attacks and present their side of the case." All of which has a strangely familiar sound.

CANADIAN BACON FOR ENGLAND

THE *Agricultural Gazette* of London is authority for the statement that it is estimated that 112,000,000 pounds of bacon will be exported from Canada to the United Kingdom during the remainder of the present year.

ARGENTINA'S POSITION AS EXPORT COUNTRY DUE TO HIGH GRADE OF SIRES

ARGENTINA AND AUSTRALIA are looked to for large supplies of beef and mutton. The former country in particular is the great beef-exporter to England. "Why?" asks a writer in the *Farmer's Advocate* of Canada, who proceeds to answer the question as follows:

"Argentine beef is of high quality because the Argentine ranchers have brought in, and are continuing to bring in, the best sires that can be procured, regardless of price. Years ago we used to smile when we read of the fabulous prices paid by these ranchers for Shorthorns in Great Britain. But they got the best there was to be had. They paid the price. They are today reaping the results of their past investments.

"The cattle in Argentina are owned almost entirely by large ranchers. They could afford to pay big prices. We are just reaching that stage in our cattle industry where it is becoming large. The numbers of our cattle are increasing at a most satisfactory rate, but our quality is only average, and it is anything but uniform. The sooner we realize this fact, the better for us."

AMERICAN MEATS FOR GERMANY

REPORTS FROM NEW YORK state that negotiations are under way in this country for the purchase of large quantities of frozen and salted meats to be sent to Germany, according to the *National Provisioner*. The meat will be purchased here by a prominent British importing firm, and through it resold to the Germans. The American agent for the British concern is said to have received orders to begin negotiations in a letter from the company's Belgian wholesale branch, where, it was reported, German merchants have made numerous inquiries for American meat. The meats wanted are bacon, salted without lean; frozen beef and mutton; and salted pork and beef, the latter without bone. American lard also is wanted.

SOUTH AFRICA'S WOOL EXPORTS DECREASING

FROM 177,000,000 pounds in 1913 South Africa's exports of wool decreased to 116,000,000 pounds in 1918, according to the *African World* of London. On the other hand, the value increased from \$27,739,050 to \$47,205,050. The United States took one-third of the total exports of sheep's wool in 1918, the United Kingdom slightly more than one-fourth, and Japan a little less than one-fourth. The exports of mohair amounted to 19,600,000 pounds—an increase of 12 per cent over the exports in 1913. Of this article the United Kingdom took the bulk, but there was a large increase in the sales to the United States.

SURPLUS OF FOODSTUFFS IN AUSTRALIA

ACCORDING TO A CABLEGRAM from Sydney, Australia, dated September 4, the following quantities of foodstuffs and wool are available for export to the United Kingdom:

Wheat	12,264,000 bushels
Meats	112,000,000 pounds
Rabbits	51,520,000 pounds
Other foodstuffs.....	134,400,000 pounds
Wool	1,320,000 bales

UNITED STATES ARGENTINA'S BEST WOOL CUSTOMER

FOR THE SEASON OF 1915-16 Argentina exported 152,598 bales of wool to this country, or 51 per cent of her entire exports of that commodity. For 1916-17 the United States took 225,467 bales, or 64 per cent. For the 1917-18 season 209,528 bales, or 73 per cent, were shipped to this country.

CONDITIONS IN NEVADA

RENO, NEV., October 30, 1919.

TO THE PRODUCER:

A snowstorm started on October 24, which was general over Nevada. About six inches of snow was on the ground in the valleys in the northeastern part of the state, and the high ranges looked like the middle of winter.

Cattle-shipping is about completed. The stock-car situation was bad over the entire state. Elko County, our heaviest producer of live stock, reports extremely heavy cattle shipments, the percentage of cows being unusually high. Demand for feeder lambs keeps up, but prices are not particularly alluring. Hay still averages around \$15.

As a direct result of organizing the Nevada Live Stock Association, the stock-growers and ranchers were recently successful in securing relief from a discriminatory 18 and 20 per cent horizontal increase in valuations on lands and country improvements, under which it was planned to raise some \$50,000 from the one industry alone to cover an anticipated deficit in state funds.

VERNON METCALF.

FOREIGN COMMERCE FOR AUGUST

DURING THE MONTH OF AUGUST, and the eight months ended August, our foreign trade had the following aspect, as compared with the corresponding periods a year ago, according to a statement made public by the Bureau of Foreign and Domestic Commerce:

	August		Eight Months Ended August	
	1919	1918	1919	1918
Domestic exports.....	\$634,673,399	\$519,357,034	\$5,153,397,859	\$3,945,456,176
Foreign merchandise re-exported.....	11,585,236	7,656,882	121,314,449	63,252,119
Total exports.....	\$646,258,635	\$527,013,916	\$5,274,712,308	\$4,008,708,295
Total imports.....	307,331,232	273,002,915	2,261,842,133	2,060,884,606
Excess of exports.....	\$338,927,403	\$254,011,001	\$3,012,870,175	\$1,947,823,689

In July the export balance was only \$225,000,000; but the August figure is still far below that of June, which month showed an excess of exports over imports of \$624,000,000.

TUBERCULOUS SOWS MAY PRODUCE HEALTHY PIGS

A NUMBER OF EXPERIMENTS with swine have recently been completed by the Bureau of Animal Industry. Some of the results obtained are as follows:

Tuberculosis among brood sows does not seem to be a menace to their progeny, if other exposure to infection is eliminated.

Feces of tuberculous cattle have been found to be the most dangerous tuberculous material to which hogs are exposed under natural conditions.

It now appears that the disease known as "thumps" in young pigs may, in some cases at least, be the result of intestinal worms, which in the larval stage migrate to the lungs, causing pneumonia.

The disease causing the birth of immature and hairless pigs seems to be most prevalent in the far West.

From experiments with hog-cholera virus and the ways in which cholera spreads, it appears that pigeons and similar birds are unlikely to transmit hog cholera.

Studies of trichinæ in pork have been continued, and the results, which obviate the necessity of microscopic inspection for trichinæ, have been used as a basis for revised meat-inspection regulations.

ROUND THE RANGE

IN MEMORY OF HENRY WALLACE

From the press of the Wallace Publishing Company, Des Moines, Iowa, has appeared a volume of "Tributes to Henry Wallace," for many years publisher and editor of *Wallaces' Farmer*, who died February 22, 1916.

Eloquently and with deep sincerity is here by multitudes of friends and admirers in all parts of the country attested the universal esteem in which Mr. Wallace was held throughout a long and singularly fruitful life, and touching testimony is borne to the influence exerted in wide circles by his noble personality and virile pen.

TEXAS RANCHERS TO SUPPLY MEAT DIRECT TO MARKET

Three of the largest ranch-owners in western Texas have agreed to furnish the district of Amarillo with fresh meats in connection with a proposed co-operative meat market, in an effort to reduce the high cost of living. The price of the meats will be 9 cents a pound, in unlimited quantities, to be retailed to the public at from 12 to 20 cents a pound, which is about one-half the prevailing prices there. The market must be maintained on an absolutely sanitary basis, and meats will be furnished only so long as the market man does not retail the products at prices higher than those named.

BLACKLEG PREVALENT IN ARIZONA

"Blackleg has caused more losses among cattle in Arizona than any other one disease. It is extremely prevalent throughout all parts of the state," says the *Arizona Cattleman*. The Department of Agriculture states that 20 per cent of the losses in cattle in the western states are due to blackleg. "This means an annual loss of over half a million dollars and about 15,000 head of young stock annually from blackleg alone in Arizona. These figures are apparently much too low; for it is certain that each year during the past five years there have died more than 30,000 cattle annually in Arizona due to blackleg, and the loss amounts to fully \$1,000,000 yearly. In certain herds losses have been especially high, amounting to as much as 20 per cent of the young stock. Since this dis-

ease may be almost entirely prevented with little outlay of expense or labor, it is important that cattlemen become familiar with the nature of the disease and how to prevent losses from it."

IOWA'S PIG CROP REDUCED

Investigations undertaken by the Iowa State College show a notable decrease in the pig crop of that state from a year ago. In sixty-nine of the eighty-six counties reporting, the reduction ranges from 2 to 50 per cent; thirteen counties show an average production; while four counties announce an increase. Taking the state as a whole, the diminution from 1918 is estimated at from 15 to 20 per cent. When it is borne in mind that Iowa has nearly twice as many hogs as any other state in the Union (9,048,000 on September 1, 1918, as against 4,580,000 in Nebraska—its nearest competitor), these figures are significant.

Various causes are assigned for this falling-off. Too liberal feeding on corn and oats—the two most plentiful feeds available—to the exclusion of proteins, such as tankage and linseed-oil meal, is believed to be in part responsible. The sows came to farrowing time too fat, producing small and weakly pigs, and had little milk. Another contributing factor was the so-called "flu" epidemic infecting many herds during the breeding season.

OUR SWINE POPULATION

The total number of stock hogs in the United States September 1, 1919, was estimated by the Department of Agriculture to be 62,073,000, as against 65,066,000 September 1, 1918. This represents a decrease of 4.6 per cent.

SHEEP-MARKETING SYSTEMATIZED IN LOUISIANA

Sheep-raisers in Pointe Coupee Parish, Louisiana, have systematized their marketing operations by reducing the size of their flocks at regular intervals. Each plantation manager has determined just how many sheep he can carry at a profit without needlessly exposing the flock to disease. As each flock increases, the surplus stock is sold so as to keep the number within the limit that has proved to be profitable.

COTTONSEED YIELD PER TON

After exhaustive investigation, the Texas State Department of Agriculture has prepared data showing the amount and value of the products to be obtained from a ton of cottonseed. On account of the severe drought, the oil content of cottonseed grown in Texas has been low during the last few years, but this year the oil content is high. It is found that a ton of cottonseed will yield products valued at \$86.35, divided as follows: 500 pounds of oil, \$48; 1,000 pounds of meal, \$33.50; 270 pounds of hulls, \$1.85; 100 pounds of linters, \$3; 130 pounds of waste.

CROPS CONSUMED BY DOMESTIC ANIMALS

The various proportions of the crops fed to the different classes of domestic animals on farms in this country have been determined by the Bureau of Crop Estimates, with interesting results.

Corn, of course, is fed to hogs much more than to any other class of animals—50 per cent to them; while horses eat 24 per cent, cattle 19 per cent, and poultry 5 per cent.

Horses are the chief eaters of oats, their share being 68 per cent, that of cattle 13 per cent, of hogs 11 per cent, and of poultry 6 per cent.

Barley is chiefly eaten by hogs, whose consumption is 60 per cent of the quantity eaten by all animals; while horses eat 18 per cent, cattle 12 per cent, and poultry 11 per cent.

Of the small fraction of the wheat crop fed to animals, poultry gets 59 per cent and hogs 29 per cent.

Rye has been fed to animals as well as used for bread and whisky, and more than one-half of this feed has gone to hogs, one-quarter to horses, and one-seventh to poultry.

Nearly all the hay goes to cattle and horses—51 and 45 per cent, respectively. Most of the silage is eaten by cattle; a little is consumed by hogs, horses, sheep, and even by poultry. Mill feed is especially for cattle and swine, which together consume 86 per cent of the whole quantity fed, in about equal proportions.

POPULATION AND BEEF CATTLE

Using the Mississippi River as the line of demarcation, the estimated population of the eastern part of the United States on January 1, 1919, was 73,755,000, and of the western part 32,981,000. The estimated number of cattle, exclusive of milch-cows, on the same date was, respectively, for the two sections, 13,886,000 and 30,513,000. Expressed in percentages, while the East had 69 per cent of the population, it had only 31 per cent of the cattle.

YOUNG VEAL IS GOOD FOOD

Until five years ago meat of calves three weeks old or less was regarded with suspicion and was not regularly salable. It was believed to be indigestible, lacking in nutrition, and not generally wholesome. This seems to have been an American prejudice without any foundation; for it is a standard article of diet in Europe, and no ill effects result there from eating young veal. The cases of meat poisoning resulting from the eating of veal have been shown to be due to poison-producing bacteria which contaminated the meat.

Experiments conducted by the Bureau of Animal Industry show that for food purposes a pound of meat from a young calf is as good as a pound of the most mature beef. Following these conclusive experiments, the federal meat-inspection regulations were amended so as to permit passing carcasses of young calves which met with the amended requirements. There are more than 20,000,000 dairy cows in the United States, which produce fully 10,000,000 calves every year. About half of these calves are heifers. In the past the heifers have been raised by dairymen, but a large number of the 5,000,000 bull calves have been killed at birth, because the milk they would consume in being brought to marketable weight as veal was worth more than they would bring on the market as veal calves. Under the present regulations, it will pay the dairyman to dispose of his young, well-developed calves for food.

CONTROLLING SEX OF ANIMALS

[American Breeder]

There are those who would mate the female at some particular time of day, or at some set stage of the heat period, in order to produce the desired sex. The best technical information at this time on this subject is that fertilization does not take place at the time of service. In some cases it has been retarded for weeks. It is likely that the sperm cells of the sire live for a considerable length of time in the generative organs of the healthy female. In the case of mares and cows it is generally understood that the female egg is not released from the ovary until the heat period is closed. The latest theory is that the egg cell breaking through the covering of the ovary creates the desire in the female causing heat period. If this is true, fertilization cannot take place immediately after a natural service.

There are a lot of things about the proposition of sex control at various times that we cannot understand. A breeder may produce all females one

year, and believe that he has made a remarkable discovery. The following year he may use the same plan or practice, and produce all of the opposite sex in his offspring. Some are of the opinion that the general flesh and physical condition of animals when mated may have something to do with controlling the sex. Some breed their animals in the dark of the moon for a certain sex. Occasionally a breeder may produce a majority of the offspring of one sex; but, if he will stay in the business long enough, he will find by experiment, covering a number of years, that the sexes will in nearly every case be about equal. Some men have tried to make comparison from stud-books covering many years to see what the natural percentage would be. This information is very unreliable at certain stages of the breeding game. A keen demand may encourage the saving of one sex to the extent that more animals of that sex would be registered.

TUBERCULOSIS IN DOMESTIC ANIMALS VARYING ACCORDING TO EXPOSURE

As is generally known, tuberculosis does not appear spontaneously. It can be contracted only when the tubercular bacilli get into the tissue of an animal and multiply. In some sections of the country—parts of the South and the western range—cattle and hogs are almost entirely free from tuberculosis. Where the disease does exist it can usually be traced to shipments from parts of the country where it is prevalent.

Of all the cattle killed at Fort Worth, Tex., during the government fiscal year ending June 30, 1918, only .06 (six one-hundredths) per cent were found on post-mortem examination to be affected with tuberculosis. At the Louisville, Ky., market less than 1 (.75) per cent of the cattle killed that year were found to be tuberculous. Of all the cattle killed at the ten northern markets during the same year, from New York to Los Angeles, 3.6 per cent were found on post-mortem to be affected with tuberculosis. The fact that less than 1 per cent of the hogs killed last year at Baltimore, Oklahoma City, and Fort Worth showed tubercular lesions, while 24 per cent of the hogs killed at the Milwaukee market were found affected with the disease, is not explained on the theory that the Milwaukee hogs had less resistance, but rather by the fact that they came for the most part from dairy sections where the disease was very prevalent among the cows, and the skim milk was not pasteurized before being fed to the hogs. The high percentage at Milwaukee was due to a more general exposure through the medium of infected milk.

SELF-DOCTORING BY ANIMALS

It appears that the simple remedies of nature generally suffice to cure beasts of their ailments, and that they are guided to them by instinct. In a communication to the Biological Society of Paris a distinguished naturalist sets forth the fact that medicine as practiced by animals is thoroughly practical.

Animals instinctively choose such food as is best suited to them. It is maintained that the human race also exhibits this instinct, and the French scientist blames medical men for giving insufficient attention to the likes and dislikes of the patients in this respect. This instinct, he believes, is a guide that may be relied upon.

A large number of species wash themselves and bathe—elephants, stags, birds, ants, etc. Animals rid themselves of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek darkness and airy places, drink much water, and at times plunge into it. When a dog has lost its appetite it eats that species of grass known as "dog's grass." Cats also eat grass, catnip, etc., when sick. Sheep and cows in the same circumstances seek out certain herbs. An animal suffering from chronic rheumatism invariably keeps as much as possible in the sun. The warrior ants maintain regular organized ambulances.

RANGE HORSES TO BE SLAUGHTERED

The first consignment of range horses for slaughter was received at Billings, Mont., on August 14. The shipment consisted of 300 head. The animals were corralled in the southern part of the state, and represent the initial shipment of a lot of 2,000 head. The suckling colts and their dams will be shipped to Iowa for feeding, and the yearlings and older horses will be slaughtered. Arrangements have been made to dispose of the hides to tanners, the bones will be utilized in the manufacture of fertilizer, and the meat will be used for feeding hogs.

DOUBLE-DECKED TRUCKS FOR HAULING LIVE STOCK

Use of double-decked auto trucks for hauling live stock is gaining in popularity in the Omaha Union Stock Yards, according to reports to the Department of Agriculture. Specially constructed trucks have increased greatly during the past summer, as the farmers in this way are able almost to double the tonnage which they formerly could haul to market. Trucks of this type are being used extensively in the transportation of feeder sheep from the market to the grazing districts.

HERD OF ABORIGINAL CATTLE FOUND IN ENGLAND

By far the most interesting matter connected with the beautiful park which embellishes the Northumbrian seat of the Earls of Tankerville is its herd of aboriginal wild cattle. Their claim to be the direct descendants of the undisputed monarch of the woods—the wild bull of Caledonia, which came thundering through the glade to the terror of our rude, skin-clad ancestors, and against whose charge their primitive weapons were no protection—is indisputable, according to a writer in the *Live Stock Journal* of London.

In appearance the Chillingham bull is a graceful, well-shaped animal, exhibiting, as a connoisseur would say, considerable "symmetry and point," and in general contour somewhat resembling a longish-legged West Highland kyloe, but longer and finer in the legs and standing higher from the ground. The "top" is equally straight, while the head is more elevated, the movements are more graceful and agile, and the whole demeanor and bearing prouder and more spirited than in any domestic breed. The carcass of a full-grown bull weighs from 500 to 650 pounds. The flesh is darker in color, but more tender and juicy, and more gamy in flavor, than ordinary beef. The horns are well set on, fine, and comparatively small for the size of the animal, arching gracefully upward and inward. They are pearly-white, with black tips. The body is white, without a spot of any other hue or tint, with the exception of the insides of the ears, which are red, together with the fringe on their margin.

The slightest deviation from this normal color is unknown. This circumstance strongly attests the unmixed purity of the breed. The nose is black, and the scenting power of the animals is remarkably acute—so sensitive, indeed, as to enable them to discover the approach of anyone at a great distance, should the air current set in that direction. They are excessively intolerant of the presence of man; and, in order to get near the herd, the park-keeper halts from time to time, as the visitors steal stealthily toward them under cover of the woods, to throw up bits of grass in order to ascertain the set of the breeze. If, by any mischance, the cattle discover for a moment the human taint, every effort to approach them that day would be futile. In fact, the monarch of the glen himself—the "crowned" stag of "dark Lochnagar"—is not gifted with acuter senses of smell and hearing, and is not more difficult of access, than the wild bull of Chillingham.

Perhaps nothing can place in a stronger light the hereditary wildness of the instincts of these cattle than the curious fact that, if a calf even two or three days old is interfered with, it will scramble upon its legs, if strong enough to rise, bellow with all its might, and butt savagely at the intruder; whereupon the dam, which always grazes within earshot, instantly comes galloping to the rescue—and woe be to him who has not secured a safe retreat before her arrival!

A natural thicket near the northeastern corner of the park, known as "Robin Hood's Bog"—a remnant of the ancient forest of Caledonia within the walls—is used by the animals as a sanctuary to which they always finally retreat when disturbed. Here the calves are always brought forth; and, should anyone invade its privacy when the herd has taken refuge in it, he probably would pay the penalty of his temerity with his life, as the whole herd would instantly charge with the utmost ferocity.

These cattle are known to be unusually excited and combative before rain or bad weather, especially at night, when their clear, loud, trumpet-like bellowing may be heard through the still night air for a long distance.

SHORTHORNS POPULAR 4,000 YEARS AGO

Horns of cattle living 4,000 years ago have recently been unearthed in Mesopotamia. In the excavation of the ruins of Gezer, a town of the ancient kingdom of Assyria, a considerable number of cow bones were found buried with stone and clay records at levels indicating their ages to range from 100 to 2,000 years before the beginning of the Christian era. Describing these relics of a past civilization, R. A. S. Macalister, in a volume issued by the University of Chicago Press, says:

"It was found that each period had its own peculiar breed of cattle, almost as distinctive as its own pottery. In the first period, about 200 B. C., the horns were fairly long, smooth, and curved. In the second, 1800 to 1400 B. C., they were larger and longer than in any other, and often grooved longitudinally. In the third they were smaller and grooved spirally. In the fourth they were, almost without exception, short, conical knobs. In the Hellenistic or fifth period they were still short, but more curved."

The author goes on to say that "some of the specimens seemed to show a species of zebu-like cattle."

In those days herdsmen and shepherds received the smallest wages of all workers. Men who were assigned to care for cattle belonging to the temple were required to return all but about one-third, and it was necessary for them to save and take in the bones, hides, and sinews

of those that died or were killed. The sinews seem to have been used for binding the joints of furniture, in lieu of nails, screws, or glue.

POPULARITY OF HORNS ON THE WANE

The horns of 338,974 cattle killed by a packing firm in 1907 weighed 81,976 pounds, or .24 pound per head. In 1918, on the authority of the *Cattleman*, the same firm slaughtered 616,226 cattle, the horns of which weighed only 53,437 pounds, or .08 pound per head. This shows that horns on feeding cattle are becoming less and less popular. It probably indicates, also, that horned cattle which do come to market have lighter horns than they did a few years ago. Dehorning with saws or shears, or by the easier and more humane method of using caustic potash on the young calves, has contributed to this decrease. An increase in numbers of polled cattle has also assisted.

MANY CATTLE LOST IN GULF STORM

Several thousand cattle were reported lost in the storm which recently swept the southern coast of Texas. The portion of the state most seriously affected is known as the "South Texas" area, which produces the earliest fat grass cattle sent to market from Texas. These losses exacted a serious toll from the best herds in that locality, as they largely represented the breeding herds left on the ranges after the fattened marketable cattle had been shipped. Farther inland the mortality was reported less, but the damage to windmills, tanks, and wells will result in great inconvenience to cattlemen for their future supply. The rainfall during the twenty-four hours of the storm was estimated at eight to twenty inches, and will prove of great benefit to the ranges, especially those inland.

EARLY SHEEP-BREEDING ADVOCATED

Early breeding, in order that lambs may be old enough to offer strong resistance to worms when they are turned on pasture, is advocated by the Nebraska College of Agriculture. Ewes bred in October and November will lamb in March and April. This will give the lambs from one to two months on their mothers' milk and on grain before they have to combat worms. The principal objection to early lambing is the necessity of having a good barn. However, the expense and trouble from early lambing are more than offset by the ability of the lambs to survive the worm season. Extra feeding of ewes during the breeding season is urged. Well-fed ewes are more likely to produce twins.

DOG MENACE IN THE SOUTH

"If dogs were properly curbed, not only would the sheep industry be put on its feet, but swine- and poultry-raising would be stimulated, and a danger to human life removed," writes a correspondent to the *Breeder's Gazette* from Wake County, North Carolina. "In 1917, 300 patients, most of them small boys and girls, were given the Pasteur treatment at the State Laboratory of Hygiene at Raleigh. Scientific investigation has shown that 17 per cent of hog cholera is carried by roaming dogs. North Carolina lost \$200,000 on this account last year. It is estimated that the poultry industry of the state can be doubled when dogs and a few other obstacles are removed. In North Carolina the number of sheep has declined since 1900 from 300,000 to 200,000, and in the entire South a 30 per cent decrease has been noticed. We need more meat and more wool; yet the sheep industry is steadily breaking, chiefly because of worthless dogs."

SUCKING HEIFERS

This habit grows out of a shortage in pasture grass. If signs of sucking are observed, watch the herd carefully until the offending animals have been spotted. Sometimes young heifers will suck themselves. A satisfactory method of preventing the sucking of themselves or other animals, according to the *Short-horn World*, is to insert through the nose a ring such as is used for ringing bulls, with one or two rings attached to it. They will not prevent the animal from eating, but will interfere with her attempts at sucking. The essential thing is to stop the practice before the udder is injured.

ELEPHANTS TO BE SLAIN

The life of the famous African elephant seems to be in danger, says a London dispatch. The South African Cape Provincial Council proposes to exterminate those in the Addo Bush Forest, near Port Elizabeth. For generations past these animals have been a great nuisance to the farmers, having damaged crops and killed many persons.

The rounding-up of the animals has involved the erection of a number of lofty observation towers. So large are the numbers to be killed that the shooting will take over six months. The natives enjoy elephant's meat, and the prospect of an unlimited supply for several months is being eagerly looked forward to.

The announcement has caused keen regret among naturalists, some of whom say that, should the threat be carried into effect, the elephant, like the mastodon and the ichthyosaurus, may become extinct.

SEAL BLUBBER TASTES LIKE CREAM

"I am often asked what seal meat tastes like, and am driven to saying that it tastes like seal meat; for it does not resemble any commonly known type of meat," writes the Arctic explorer, Vilhjalmur Stefansson, in *Harper's*. "But neither does mutton resemble any meat known to me, and still mutton is good eating; and so is seal. But the fat is much easier to describe. When the blubber is eaten raw, as we commonly eat it by preference, it has a flavor very similar to that of fresh cow's cream; but when boiled it closely resembles fat of mutton."

"In general, most men refrain from tasting blubber because it is named blubber, until they become so fat-hungry that they are eventually driven to trying it; and, when they try it, to their surprise they invariably find it so delicious that, if not restrained, they overeat; and, as is well known, overeating on any form of fat causes nausea and other distressing symptoms. After one or two experiences of this sort, I am now careful never to allow a man to eat all the blubber he wants the first time he tries it; for, if he gets sick, he is almost certain to blame the seal and not his own gluttony."

FEEDING PIGS BY MACHINERY

A hog-meter is not a motor-hog; it is a pig self-feeder. Two of these ingenious inventions have been tried by the Western Australian minister for agriculture on his farm, with eminently satisfactory results.

The machine is a combination of a hopper, a grinder, and a delivery platform, which has ten divisions. The ground wheat is equally distributed by delivery chutes. The snouting instinct of the pig has been requisitioned to supply the motive power, the divisions on the platform being so arranged that the animal, in trying to snout it out of the way for more feed, forces the platform around, thus grinding for itself more wheat, which falls in the next and succeeding divisions, and so on.

Ten pigs can feed at the same time. There is no waste. The pig does not crush more than he can eat, and he cannot possibly eat more than he crushes.

NEW ARMOUR PLANT AT ST. PAUL

Armour & Co.'s new \$10,000,000 packing plant at South St. Paul, Minn., which has been under construction for the last two years, will be opened for operation some time this autumn. The plant will have a daily capacity of 6,000 hogs, 1,000 sheep, 700 cattle, and 500 calves.

ARMOUR PLANT AT JERSEY CITY

Armour & Co. intend shortly to begin the construction of a plant in Jersey City, N. J., at a cost of approximately \$4,000,000. Tentative plans for the plant were made several years ago, but were temporarily abandoned because of this country's entry into the war. The new plant is to be eastern headquarters for the firm.

CENSUS OF FUR SEALS

The Bureau of Fisheries has received a telegraphic résumé of the annual census of the Alaskan fur seals. The tentative figures submitted indicate the strength of the herd, as of August 10, 1919, at 524,269 animals of all ages, compared with 496,432 seals in 1918. The number of pups born, equivalent to the number of breeding cows, was 157,172—an increase over 1918 of 10 per cent in each class. The aggregate figures for 1919 do not include the seals taken for their skins.

THE OLD CHUCK-BOX

[James H. Sizer, Tonto National Forest, Arizona]

There's a worn-out wagon back of the corral,
With the old chuck-box still bolted in the bed.

After years of rough abuse,
It's condemned for further use,
And abandoned by the men that once it fed.

On the plains and in the mountains of the West,
From Mexico to Canada and back;
On the round-up and the trail,
In the sunshine, rain and hail,
The boys who rode the range have seen its track.

Through the cactus and the sagebrush and the sand,
Over roads that never knew another wheel,
Smeared with dust and sour-dough,
They have seen it come and go,
As it hauled the chuck that went to make a meal.

In the dimness of the morning's early dawn,
In the scorching glare of summer's noon-day sun,
As the evening shadows fell,
It has echoed to the yell,
As the cook called to the boys that chuck was done.

It's the grandma of the modern dining-car;
It's the hobo brother of the French cafe;
Preordained a roving tramp,
Serving meals and moving camp,
It was hostess to the homeless in its day.

Its lid is barely hanging by the hinge;
Its sides are worn to splinters on the bed;
Its top is split in two,
So the dirt comes sifting through;
It's a relic of the living and the dead.

The round-ups and the trail herds now are past;
The wagon's done with jolting o'er the rocks;
And we boys must drift along;
So I sing this little song,
In memory of the Old Chuck-Box.

AFTER THE DAY'S WORK

THEODORE ROOSEVELT

Gigantic figure of a mighty age!

How shall I chant the tribute of thy praise,

As statesman, soldier, scientist, or sage?

Thou wert so great in many different ways.

And yet in all there was a single aim—

To fight for truth with sword and tongue
and pen!

In wilderness, as in the halls of fame,

Thy courage made thee master over men.

Like some great magnet, that from distant poles
Attracts the particles and holds them fast,
So thou didst draw all men, and fill their souls
With thine ideals—naught caring for their past,
Their race or creed. There was one only test:
To love our country and to serve it best!

—Leon Huhner.



THEODORE ROOSEVELT, had he lived, on the 27th of October would have been sixty-one years old. Thus he was taken away at an age when a man's faculties should be at their zenith; at an age when under the old order men of mark were just beginning to make their influence felt.

But into this brief span of threescore

years he crammed a dozen full-blown existences. Into a dozen diverse pursuits he put enough of his inexhaustible store of enthusiasm to make him pre-eminent in each. And if men's happiness is measured by the degree in which it is given them to realize the things of their choice, his must have been a supremely happy life.

In Roosevelt's case the verdict of history has been anticipated. We need not wait for posterity's appraisal. His place in the pantheon of the nation's great is as secure and undisputed as is that of Washington or Lincoln. Antagonists he had—plenty of them; made them deliberately, joyously, born gladiator that he was. But of enemies he left none. Even his detractors ended by admiring. The sense of bereavement that shadowed every home in the land at the news of his death was much more than mere regret at the passing of an honored leader—it was grief for the loss of a personal friend; pure personal sorrow it was, mingled with anxiety for the structure he had reared with his own hands and supported almost wholly by his own sheer strength. And the spontaneity of the echo which the tidings evoked out into the remotest corners of civilization has had few, if any, parallels in history.

For, with all the intensity of his patriotism, Roosevelt was in a peculiar sense a world figure. His message was to men of imagination and force everywhere. From some one of the facets of his wonderfully versatile genius each of twenty types of mind would find reflected its own particular predilections and capacities. Ranchman and writer, soldier and scientist, statesman and philosopher, hunter and historian, bird-lover and linguist, dreamer and doer, each in turn he would greet on his own ground, in his own language, as a peer or acknowledged master; dissolving and reuniting the multiple rays of human aspirations and achievements in the white light of one effulgent, magnetic, dynamic personality, till the gleam, dazzling and bewildering, reached to the ends of the earth.

In still another direction his appeal was to universal values. Roosevelt's was fundamentally a primordial nature. Underlying and pervading the kaleidoscopic complex of his attainments and interests were the instincts and prejudices of elemental man. His gauge for all of life's phenomena remained the decalogue. The homely virtues which he kept extolling with almost irksome monotony were the heritage of mankind from Sinai to Plymouth Rock. Within their boundaries lay his power—as well as his limitations. With the infinite ruminations and hair-line refinements of an attenuated psychology he had little sympathy. The soft-tissued tolerance of a pallid skepticism only provoked his scorn. His passion was for anchored moralities, for the "truth everlasting." Rough-hewn and red-hued was his defiant righteousness; steel-tempered his cocksure militancy—

the sort that stirs the brute slumbering in all strong men's breasts, and the craving for concrete objects of idolatry swelling most women's. And even the Pharisees had to applaud this "Apostle of the Obvious" in spite of themselves. For, under the veneer of doubt and indifference, lies there not buried in modern men's souls an atavistic yearning for the code of the cave-man and the impulses of the child?

Thus the Roosevelt spirit is essentially cosmopolitan. The patriotism which he preached was of the broad-gauged kind that is closely akin to the new internationalism. The America of his ideal was the sturdy youngster in the household who never forgets his duties to the other members. Not isolation, but leadership, was the only worthy policy for his country. And when a favorite form of tribute to the qualities in him which are at the basis of the new cult found frequent expression in the phrase that Roosevelt was "the typical American," the platitude was but the statement of a fractional truth. Versatility, virility, aggressive integrity—these are not the monopoly of any one race. Much truer it would be to say that he was the super-American precisely because he was the highest type of the composite individual who represents the new breed—a blend of the best in many races and civilizations.

For Roosevelt saw clearly that the nationalism that draws its nourishment from ignorance of foreign countries is but a shallow thing. His Americanism was the wholesomer and deeper-rooted for his intimacy with other cultures. He had the outlook that alone lends perspective. And with the outlook came the outlonging. Constantly reaching out for new territory to annex to the domain of his intellect and experience, he sought for founts of inspiration in many lands. But, his thirst sated, his path led homeward. From honors and adventures—the thrills of the jungle, the flattery of kings, the acclaim of the populace, the converse with cloistered sages—his eyes turned ever toward his native shore—the land of his love where his work lay.

* * *

Nations must honor their heroes. Republics must cease to be ungrateful. If modern democracies are leveling, the more it behooves us to venerate the few outstanding peaks that relieve the landscape. Out of the plain of drear mediocrity rose this giant—a veritable mountain of strength.

Funds are being collected to raise him a fitting memorial. No American, as Roosevelt himself interpreted the term, can afford to withhold his contribution.

THE KIDS' CORRAL

THE STONE OF DESTINY

[Evelyn Stein]

No doubt you children have read that the young Prince of Wales has been traveling in Canada, and that he will probably visit our country also; and I dare say you take the friendly interest in him which we are apt to feel for agreeable foreign folks who come to see us. Now, some day, when this young prince is older, very likely he will be King of England, and when he is crowned in Westminster Abbey he will sit in a famous old chair called the Coronation Chair. If you have ever seen a picture of this, you must have noticed that under its seat is fastened a good-sized flat stone, which seems an odd thing to have about a king's chair, and it seems odder still when one knows its story.

The Scotch people call it the Stone of Scone, and say the story begins in their country; but the wise folks of Ireland declare that they know better, and that the tale of it, which has been handed down for ages, really starts in fairyland. Long and long ago, they say, a wonderful race of people called the DeDanaans came sailing across the sea—never mind from what direction—and, finding Ireland was such a green and beautiful island, with meadows all full of pink daisies and golden flag-flowers, they landed there; and then they burned all their boats on the seashore, showing that they meant to stay.

The DeDanaans were very tall and handsome, with bright blue eyes and yellow hair and white skin, and they were skilled in all kinds of magic arts. And no wonder, for they had come from four of the chief cities of fairyland. Nobody quite knows why they left fairyland, but perhaps they had stayed there so long that they wanted a change. At any rate, by their magic they had made themselves tall and regular-sized people, instead of the little folks they had been while fairies; and there they were wandering around the Irish meadows, where very soon they built themselves queer round houses woven all of willow boughs, which they painted outside in bright colors. And everybody kept a sleek cow and a beehive; for the things they liked best of all to eat and drink were milk and honey.

Now, the DeDanaans had brought some precious things with them from fairyland. They had an invincible spear and a magic lance, which were wonderful in battle; an enchanted caldron, from which hundreds of men might be fed, and yet it would always be full of savory meat; and last and most precious of all was a flat stone, which they called the Stone of Destiny. The story began so very long ago that the Irish people who tell it are not quite sure why it was that the DeDanaans valued this stone so much; for it was just a plain, gray, ordinary-looking one. But there must have been something magical about it; for the DeDanaans took the greatest care of it, and would allow none of their kings to be crowned unless he stood on it during the ceremony. One of the reasons they did this was because of the strange knowledge the stone seemed to possess. If the king to be crowned was a lawful one, it kept quite still, as do ordinary stones; but if he had no real right to the throne, then the moment he stepped upon it the stone would roar like an angry lion, and, of course, the DeDanaans would know that the king was false and would drive him away.

The DeDanaans thus ruled in Ireland a long while. And then one day another race of people, called the Celts, came sailing over the sea. And when the DeDanaans saw them they were afraid; for there were so many of the Celts that they knew they could not drive them away if once they landed. So by their magic arts they raised a fearful storm, hoping to destroy the Celtic ships. The storm did wreck many of them. Nevertheless, great numbers of the strangers managed to land, and there was a terrible battle. The DeDanaan king fought bravely, and killed hundreds of the Celts with his invincible spear and magic lance; and all the army strove heroically to chase off the newcomers; but there were such hosts of them that at last the DeDanaans were overpowered and conquered.

The Celts made themselves kings over them; and by and by the DeDanaans, finding they ruled them harshly, decided they would much rather be fairies again. So they set to working their magic spells; and soon they began to grow smaller and smaller, till presently they were tiny

as fairies, and from their shoulders little gauze wings fluttered, as bright as bits of rainbows. Then quietly they crept out of sight. Where did they go? Why, they burrowed under the green hills and flowery meadows till they came to a lovely underground fairyland; and there they made themselves wonderful houses, where they still live, so Irish folk declare; for every day they feast on magic meat and mead, which keeps them forever young and beautiful.

Sometimes, on moonlit nights, they creep out again into the fragrant meadows, and, catching each other's hands, they dance—oh, the maddest, merriest frolicking, their tiny silver shoes twinkling and their gauzy wings glimmering in the most enchanting way! They always choose a spot where no one is likely to come; for they do not want to be seen. But once in a great while, when some peasant's cow perhaps has strayed away and the children of the family have been out late hunting her, it happens they glimpse the fairies; and such as do say it is the most wonderful sight! Indeed, many of these kindly little folks often set small bowls of new milk on their hearths at night, so, if the fairies come, they may sip it; for they have heard how fond of milk were the DeDanaans in the old days.

Often, too, in summer the boys and girls who get up early and go to the meadows see a ring of tall, bright-green grass where the fairies have danced; for their little tripping feet always make the grass spring up greener and fresher than elsewhere. The boys and girls declare also that sometimes they glimpse the fairies themselves, with their scarlet and golden caps, as they flit away to their underground homes. Some stupid grown people laugh at this and say to the children: "Oh, it was only the red poppies and yellow buttercups that you saw!" But for my part, I would much rather trust the sharp eyes of the boys and girls, and I am quite ready to believe what they say.

But perhaps you ask: "How did the Stone of Destiny get at last to the king's chair?" Well, it was this way: When the DeDanaans became fairies again, they took with them the invincible spear and magic lance and enchanted caldron, but not the stone; for that the Celts had taken from them to use when their own kings were crowned. After a while it chanced that the Celtic king had a brother who was a prince about to be crowned King of Scotland; and the prince was so anxious to stand on the wonderful stone, and begged so hard that it might be loaned to him for a year, that at last the Celtic king sent it to him. But before it was returned to Ireland,

the King of England had made war on Scotland and carried off the stone to London. And by and by it was placed in the Coronation Chair which is still used by the English kings when crowned in Westminster.

And this is how it comes about that the young Prince of Wales, who has been visiting America, will probably some day sit on the magic stone the DeDanaans brought from fairyland.

A CATECHISM OF THE STATES

[Capper's Weekly]

Which is the best state for fresh pork?—New ham, sure.

Which is the best for an early summer hotel?—May inn.

In which should surgeons dwell?—Connect-a-cut.

In which should laundrymen prosper?—Washing done.

In which do impudent people dwell?—Can sass.

Which is the best for deer-hunting?—Collar a doe.

Which is the best to steal a walking-stick in?—Cane took, eh!

Which is the best for locksmiths?—New brass key.

In which would you look for a morning attire?—Day coat, eh!

In which is one likely to fail in getting a drink?—Miss-a-sip.

In which can you find a red letter?—Florid A.

In which does the hustle make one sick?—Ill o' noise.

In which is one likely to use his farming implements?—I'd a hoe.

In which can one acquire an estate by marriage?—Marry land.

In which is one letter of the alphabet taller than the others?—O higher.

In which are bodies of land surrounded by water given a ride?—Rhode Island.

Which is called to your mind by holding two \$5 bills?—Ten I see.

Which would a woman rather have if she can't get a new sealskin sack?—New Jersey.

Which does the farmer's wife mention when she asks you to partake of apple sauce?—Take sass.



The
Bicycle
will outrun
the horse

But needs no food, gasoline or shelter, does not shy, and suffers from no ailments. The motion, too, is charming and wholesome, and is the nearest thing to flying. It adds wings to a boy or girl. Get them each one for Christmas.

THE PANSY MOTOR AND CYCLE WORKS

Main 3885 1715 Lawrence Street
Denver's Leading and Most Popular Bicycle House

Powers Behen & Co.
The Store
for Men

Confidence Inspiring

The reputation we have achieved for selling only the world's best grades of clothing, coupled with the personality of our store service, has won for us the patronage of a great army of clothing buyers. The confidence thus inspired is again fully justified by the supreme quality and style and splendid values of our fall offerings.

16th at
California

Sure Insurance

THE SIGN OF GOOD INSURANCE



THOS. F. DALY, President

SUPERB SERVICE

The Thos. F. Daly
Agency Co.

Tel. Main 451
Box 1200 Denver, Colo.

FARMS AND RANCHES

2,160 Acres, \$72,000

Level, fine, dark, sandy loam soil, covered with buffalo and grama grass; 400 acres subirrigated alfalfa land; new four-wire fence, and exceptionally nice house, barns, and outbuildings. Joins good town on railroad and main auto road; 12 miles of large city, 70 miles of Denver

EASY TERMS

GEORGE G. CLARK REALTY CO.

1806 California St.

DENVER, COLO.

MOUNTAIN RANCH

880 acres, in Jefferson County, 40 miles from Denver; fenced and cross-fenced into four pastures; water in each; two sets of improvements; 160 acres in cultivation; lots of timber; cuts considerable hay; will run 250 head all year; some outside range. 60 head of cattle, being cows, yearlings, and few calves; 5 head of horses; and all farm machinery needed

Price for all, \$26,500. Terms

GEORGE H. BURNS

304 Gas and Electric Bldg.

DENVER

SOUTH PARK

Stock Ranch

2,000 acres, deeded (1,500 acres under ditch), early water rights deeded, 390 head of cattle, 125 calves, 800 tons hay, 28 horses, all equipment, free range.

Ranch will run 1,500 head. Best ranch in Park. To close an estate will sell at \$55.00 per acre, half cash, and this includes everything except personal belongings in house.

J. T. Fredericksen Inv. Co.
805 17th Street, Denver, Colo.

Grand County Ranch

950-ACRE Grand County Irrigated Stock Ranch, including 150 tons of hay, 16 horses and farming implements. All to go at

\$18,500

Immediate possession.

R. F. FERGUSON,
934 17th Street, Denver, Colo.

Money to Loan

We loan our own funds and guarantee you prompt service on farms and ranches. Call or write for rates and terms.

The Eastern Colorado Farm Loan Company

410 First Nat. Bank Bldg.
Denver Colorado

Irrigated and Non - Irrigated

FARMS

STOCK RANCHES AND GARDEN TRACTS

Edwin P. McCrimmon

710 Eighteenth Street
Denver, Colo.

E. F. Peirce Farms and Stock Ranches

206 Temple Court Building
Denver, Colo.

The Gagan Land Co.

We specialize in Irrigated Lands and Cattle Ranches in Colorado and New Mexico, and are in a position to quote attractive prices on our own properties.

First National Bank Bldg.
Denver Colorado

960-Acre Stock Ranch

\$50 an Acre. Terms. Located 40 miles from Denver, 2 1/2 miles good high school town and railroad. All fenced and cross-fenced. Plenty of water for 1,000 head. Automobile, 15 horses, 95 cows, 2 thoroughbred bulls, 65 calves, all Aberdeen-Angus breed. 225-ton silo. Complete line of farming implements; everything goes. Have hundreds choice buys in all sizes and prices.

CLOW LAND OFFICE
1513 Stout Street Denver, Colo.

Ranches Close to Denver

240 acres; 30 acres in alfalfa, balance pasture land; six-room brick dwelling. Price, \$50 per acre.

120 acres; 35 acres in alfalfa, balance grain land; good brick dwelling, barns, sheds, etc. Price, \$125 per acre.

We have some large tracts of low-price grazing land.

SYDNEY C. OSMER & CO.

401 14th Street

DENVER, COLO.

28 Years in Denver

Reynolds, Covey & Reynolds

FARM LANDS AND RANCHES

We specialize in Kiowa Valley Lands of which we are the owners.

625 Exchange Bldg.

Denver, Colo

Stock Ranch Bargain

Only 20 miles from Denver Stockyards, 2,500 acres of excellent winter grass; spring water; good south slope and shelter; 120-ton silo, full; plenty of hay, corn, and roughness; good buildings. Price for quick sale,

\$18.50 per Acre

WALTER W. OLMSTED
608 Ideal Building

17th and Champa Sts.

Denver, Colorado

15 years' experience with ranches.

Reference: U. S. National Bank

THE WOMAN'S CORNER

THE PRODUCER invites its women readers to send it contributions, ideas, suggestions for this department. Co-operate with us in making the "Corner" just what you want it to be. Address all communications to Editor Woman's Corner, THE PRODUCER, 515 Cooper Building, Denver, Colo.

THANKSGIVING

[Mabel Compton]

THANKSGIVING DAY will soon be with us again. Shall we think more, I wonder, of turkey, which costs so much, or of thanks, which cost so little and mean so much. It is good to stop and remember once in a while that there are things for which we really are thankful, though we do not always admit it, even to ourselves. Most of us are so much richer than we think we are. But we usually forget that, because we are so busy being vexed and discontented with life as God gave it, we hold all our small disturbances so close to our eyes that they shut out many bigger and better things from our sight.

Most of our desires are to be had. We do not ask, or think we do not ask, the impossible. And yet we want so much—so much for so little. If we could only simplify our wants somewhat in accordance with our actual needs, how much easier it would be to supply them! Instead, however, we imagine that literally "showers of blessings" would make an ideal mode of existence. But that is just our pet mistake. If we could have everything that we want merely for the asking, how long would there be anything left to want? With nothing to hope for, nothing to plan for, nothing to strive for, what would there be to live for? Would not life itself have lost its purpose?

We walk in our own shadow. The source of our discontent lies not so much in our heritage as in ourselves. If we devoted some of the quarrel we have with fate to ourselves, we should sooner find where our troubles lie.

If we hold our apron under an apple tree, we may catch a few windfalls; but the chances are that the best are hanging safe and high. If you do not want to go after them, or cannot, don't frown or sigh because the topmost does not fall on you. Quite possibly the conditions attaching to its possession are such that you would not want it if you knew. Perhaps it would only be wasted on you, or you on it. Anyhow, we can always console ourselves with the plain truth that there are plenty of our own shape and size hanging within our own reach—which is one thing among the many for which we have more cause to be thankful than we likely are aware.

FEEDING THE UNDERNOURISHED CHILD

Children require a foundation of good health, made by adequate nourishment; but many of them in this country are not laying this foundation. The United States Department of Agriculture is assisting the various agencies working to correct this condition. Undernourishment is not confined to the slums. Many a little Tony or Pietro, with his bowl of thick soup and hunk of dry bread, topped off with an apple or an orange, is better fed than numbers of children in well-to-do families. The latter are too often allowed to choose what they will or will not eat, and to select food badly suited to a child's stomach or that is lacking in nourishment. When this happens, they are being starved just as much as if their parents, because of poverty, were obliged

to give them too scanty a ration. Soggy breads, fried meats, fried potatoes, and heavy pie are responsible for many underfed children.

Milk is absolutely necessary to keep the growing child in health. It contains growth-producing substances not found in any other food. The Dairy Division of the Department of Agriculture is endeavoring to drive this lesson home to the people in every state by means of charts, lectures, and exhibits. The home-demonstration agents, supervised by the Department of Agriculture and state colleges, are also teaching the value of milk in a child's diet, and how to select a proper meal for a growing boy or girl. Children who have been given even one pint of milk every school day for two months have made remarkable gains in every instance.

PIE TIME

With heaps of golden pumpkins, baskets of juicy red apples, and overflowing crocks of spicy mince-meat in the cellar; with frosty fall days and hungry men folk, of course it is pie time. And most of us can make a pretty good filling; but a crust that is crisp and flaky after it is baked—especially an under crust—is something of an accomplishment. The following method is well worth trying:

Pie Paste

2 cups flour	1 cup lard
1 teaspoon baking-powder	1 tablespoon butter
1/2 teaspoon salt	Little cold water

Have all ingredients and utensils quite cold. Mix and sift flour, salt, and baking-powder. Chop and mix the cold, hard lard into flour until of a coarse, mealy texture. Do not work it until it is smooth. Add just sufficient very cold water to hold the paste together. Roll out quite thin. Line pie-tins with paste. Brush over bottom crusts with the tablespoon of butter slightly melted, and dust lightly with flour. The butter and flour prevent the moisture of the filling from softening the crust and making it soggy. Fill your crusts with either of the following mixtures, and bake in moderate oven:

Apple Pie

For each pie use about five tart apples sliced very thin. Fill well your paste-lined pie-tin. To one cup of sugar add a tablespoon of flour, a small pinch of salt, and a tablespoon of ground cinnamon. Sprinkle this over the sliced apple; wet edge of paste thoroughly; add upper crust; flute edges together with fingers or fork; make an incision or two in top for escape of steam, and bake about forty minutes.

Pumpkin Pie

2 cups pumpkin	2 tablespoons molasses
2 cups rich milk	2 eggs
4 crackers rolled fine	2 teaspoons ginger
2 cups sugar	2 teaspoons cinnamon
	1/2 teaspoon salt

Bake the pumpkin. It is drier and richer than when stewed. Add other ingredients—milk last. Line pie-tins with paste according to directions. Build up edges well. Bake about thirty-five minutes.

Grandma's Mince-Meat

4 cups chopped meat (cold boiled beef)	
2 cups currants	4 teaspoons all-spice
2 cups raisins	4 teaspoons cloves
12 cups chopped apple	4 level teaspoons salt
4 cups brown sugar	2 cups chopped suet
4 cups granulated sugar	2 cups sweet pickle vinegar
12 teaspoons cinnamon	4 cups cider

Cook in porcelain kettle until apple and raisins are tender. Pack in crockery jars. If it is to stand some time, cover well with paraffin when cold.

"THE YOUNG VISITERS"

BY DAISY ASHFORD—AGED NINE

At least so Sir James Barrie says. He has written a lengthy preface to the book himself, and ought to know. A question, however, has arisen in some minds as to whether Sir James is not simply playing a joke on us with his accustomed charming whimsicality. However this may be, "The Young Visitors" is attracting widespread attention just now, both in England and in this country, and furnishing some very delightful entertainment.

"Mr. Salteena"—whose great ambition was to break into high society—"was an elderly man of 42 and was fond of asking people to stay with him," Daisy tells us. "He had quite a young girl staying with him of 17 named Ethel Monticue. Mr. Salteena had dark short hair and mustache and wishers which were very black and twisty. He was middle-sized and he had very pale blue eyes. He had a pale brown suit but on Sundays he had a black one, and he had a topper every day as he thought it more becoming. Ethel Monticue had fair hair, done on the top and blue eyes. She had a blue velvet frock which had grown rather short in the sleeves. She had a black straw hat and kid gloves.

"One morning Mr. Salteena came down to breakfast and found Ethel had come down first which was strange. Is the tea made Ethel he said rubbing his hands. Yes, said Ethel and such a queer shaped parcel has come for you."

Mr. Salteena is invited to visit a friend, Bernard Clark, who requests him to "please bring one of your young ladies whichever is the prettiest in the face." Mr. Salteena replies: "I am fond of digging in the garden, and I am parshial to ladies if they are nice I suppose it is my nature. I am not quite a gentleman, but you would hardly notice it but cant be helped anyhow."

Mr. Salteena arrives at the palatial home of his friend. "A tall young man of twenty-nine rose from the sofa. He was rather bent in the middle with very nice long legs fairish hair and blue eyes." He addressed the embarrassed Salteena with the words: "Hullo Alf, old boy!" Salteena suitably replies and introduces Ethel, announcing that she is very pleased to come for this visit. "Oh yes, gasped Ethel, blushing through her red ruge. Bernard looked at her keenly and turned a dark red."

At the dinner table: "Well said Mr. Salteena lapping up his turtle soup you have a very sumphous house Bernard.

"His friend gave a weary smile and swallowed a few drops of sherry wine. It is fairly decent he replied with a bashful glance at Ethel after our repast I will show you over the premisis.

"Many thanks said Mr. Salteena getting rather flustered with his forks.

"You ought to give a ball remarked Ethel you have such large compartments.

"Yes there is room enough sighed Bernard we might try a few steps and meanwhile I might get to know a few people.

"So you might responded Ethel giving him a speaking look."

The evening closes with prayers. "Bernard always had a few prayers in the hall and some whiskey afterwards; as he was rather plous, but Mr. Salteena was not very addicted to prayers, so he marched up to bed."

Mr. Salteena confides his social aspirations to Bernard, who introduces him to the Earl of Clincham. The earl takes Salteena to a "levie" at Buckingham Palace, where he enjoys further adventures.

"And how is the dear Queen Clincham said reveruntly. Not up to much, said his Highness she feels the heat poor soul and he waved to a placard which said in large letters The Queen is indisposed."

They pass to a private room, and the prince unbosoms his soul:

"The Prince tapped on the table and instantly two menials in red tunics appeared. Bring three glasses of champagne commanded the Prince and some ices he added majestirally.

"It upsets me said the prince lapping up his strawberry ice all I want is peace and quiet and a little fun and here I am tied down to this life he said taking off his crown being royal has many painful drawbacks."

We meet Ethel and Bernard again at the "Gairty" restaurant, where they are having a gay time. Bernard is very much in love.

"I love the girl he said to himself and she must be mine. I will lay my suit at her feet and he waved his arms wildly at the gay thought. Then he sprang from bed and gave a rat-tat at Ethel's door.

"Are you up my dear he called. I have a plan to spend a day near Windsor Castle.

"Oh hurrah! shouted Ethel. I shall soon be ready as I had my bath last night so won't wash very much now."

Promptly after the engagement Ethel sends out R. S. V. P. notices to her friends to attend the wedding at Westminster Abbey. There were some interesting presents—among them "a very huge tara of rubies and diamonds, a gold watch which did not go but had been some years in the family, a check for £2 and the promise of a darling little baby calf when ready."

The book ends: "Ethel and Bernard returned from their Honeymoon with a son and hair a nice fat baby called Ignatius Bernard"—presumably to live "happy ever after."

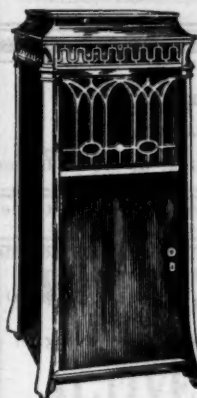
The Name

EDISON

is your
guarantee
of
the best
phonograph
made

Write for our
catalog

Newest
Records
Each Month



Buy Your NEW EDISON from

The
Carl Schultz
Piano Co.

141 Broadway, Denver, Colo.

Mail orders solicited

**WE SHIP ANYWHERE
WRITE FOR OUR TERMS**

Mothers and Daughters

who motor and
spend much
time in the
out-of-doors
will find

**LeSecret
Liquid
Powder**

used in
conjunction
with the
Cold Cream,
of inestimable
value in over-
coming the ill
effects of wind
and sun on the
complexion

Liquid Powder
\$1.00

Cold Cream
75c

Sent
postpaid on
receipt of
price



THE IMPORTERS COMPANY
Distributors
1335 Lawrence St. Denver, Colo.

THE POETS' DEN

GIVE TO THE LIVING

[Ida G. Norris in *New York Times*]

If we gave unto the living, as we lavish on the dead,
Kindly thoughts and gentle phrases, tender words and friendly praises,
Blotting out all imperfections, holding virtues up to light;
If we left no daily token of our love and care unspoken—
Then would life be well worth living in a world all glad and bright.

If we offered to the living, as we heap upon the dead,
Fragrant flowers of affection, blossoms of sweet recollection,
Waiting not till hands are folded on the quiet, pulseless breast—
Then the passion of our pleading would not fall on ears unheeding,
Nor our tears fall, unavailing, on the weary form at rest.

If we gave unto the living, as we lavish on the dead,
All our heart's long hidden treasure, all love's full, unstinted measure,
Adding day by day new jewels to the crown of human bliss—
Then life's burdens would weigh lightly, and the sun would shine more brightly,
And not heaven itself were fairer than a world as glad as this.

A RESURRECTION

[G. E. Bennett in *Poetry*]

I buried all my pleasant dreams,
Scattered the brown earth over;
Left them for the rains to weep,
The stones and weeds to cover.

Then, when I turned to go my way,
The whole world seemed a-graying;
Around my rocky, up-hill road
No pleasant dream went straying.

One day I wandered back again
Where my dead dreams were lying;
Gay daffodils were blooming there,
White butterflies were flying.

WHAT IS LIFE?

[A. B. in *London Morning Post*]

"Life is fire and thunder,"
Shouts the fighter; "life is wild.
I have ceased to pray and wonder
Like a stupid child."

"Life is dust and laughter,"
Sneers the cynic; "life grows cold.
There is nothing waiting after
When our hearts are old."

"Life is song and magic,"
Sighs the lover; "life has wings.
Life fills love with human, tragic,
Dear, brave, tender things."

TWILIGHT

[John Bunker in *Contemporary Verse*]

Softly as tremulous dreams
The dusk comes floating by,
Like visible music of streams
And mist and air and sky.

The shadows waver and go,
Rippling over the grass,
Like musical waters that flow,
Like musical winds that pass.

Like a silver strain,
Silence and dusk float by,
Soothing as sleep after pain,
Wistful as dreams that die.

THE FIR

[Donald A. Fraser in *American Forestry*]

O Forest Fir!
Standing so straight and so slender—
Gigantic, yet slender;
Spreading thine arms so benignly
In benison over thy kindred;
Why dost thou shiver and groan,
And moan like a spirit in anguish?
Dost hear the far ax being sharpened,
The blades that shall sever thy heart-strings,
And lay thee a-low in thy glory?
Moan not; for to all comes a season
When Earth calleth back what was borrowed;
So he who shall shatter thy life-dream,
In turn shall his life-dream be shattered.
Then moan not, O Forest Fir slender,
And groan not in anguish and sorrow;
But stretch forth thine evergreen fingers
And touch on the strings of the wind-harp
A melody sweet and caressing,
A pean of love and forgiveness;
And breathe o'er the world so ungrateful
Thy resinous odors of healing,
Right on till the ax shall incise thee.
Perchance when thy last groan is uttered,
And the thunderous crash of thy death plunge
Shall melt in the aisles of the forest,
That God will begin a new era
For thee, a new lease of achievement;
And thus thy proud death shall accomplish
Far more than thy bourgeoning life-span,
O Forest Fir,
Standing so stately and slender!

IN THE PINE AVENUE

[M. Forrest in *Sydney Bulletin*]

The wind in the pine avenue forgets it once
was warm;
Although the lightning bares the sky in
shudderings of storm,
The dark boles stand to mock the road like
signless finger-posts,
And where the sodden needles lie each foot-
fall is a ghost's.

Blown inland from a shipless sea there
comes a rush of rain;
The voices of the wistful boughs are plead-
ings raised in vain;
The cold, wan moon above the crests that
scarcely dares to show
Is as a woman's watching face—forgotten
long ago!

CASTLEBAR

[Leslie N. Jennings in *Liberator*]

When I went down to Castlebar,
I measured with my eye
The silver shilling of the moon,
And wondered what 'twould buy.

"I'll take the early road," says I;
"For sure there's bound to be
A chimney smoking in the town,
And women making tea."

When I went down to Castlebar,
The dew was on the earth—
And me a-wondering how the moon
Could get a shilling's worth!

THE RIDERS

[Mary C. Davies in *Smart Set*]

Life is on a swift horse, and Youth is on a
fleet;
Beauty rides with spur and whip, and
nothing stays.
Snatch my hand, and pull me close, and
make them beat,
Your heart and my heart, a few small
days!

Let the quarrels go now, the explaining
word;
Let the treasured griefs drop down like
sand.
What are our best toys, when their hoofs
are heard?
Put the words behind us, and touch my
hand.

Mighty are the steeds and swift, wild the
steeds that bear
The Three on the highroad where the great
stones fly.
If your face hide at my neck, my eyes hide
in your hair,
We shall never know, then, Who has
ridden by!

LINDY

(Negro Love Song)

[Edmund V. Cooke in *Harper's*]

My Lindy say she lumme;
My Lindy say it's so;
My Lindy say she lumme lots,
But why she doesn' know.
I bet My Lindy lumme, I bet her heart mos'
break,
'Case if she didn' lumme lots, she sho make
one mistake.

My Lindy say she lumme;
She say she tell me true;
She say she lumme such a much
She don' know what to do.
I bet dat's true she lumme, she lumme all
she can,
'Case if she didn' lumme, den she couldn'
love no man.

My Lindy say she lumme;
She say she lumme hard.
My Lindy smillin' all de while,
And smilin' most a yard.
I bet My Lindy lumme, I bet dat make her
proud;
I bet she got a right to smile and maybe
laugh out loud!

THE SPICE BOX

High Cost of Living.—A congressman received repeated requests for pea seed from one of his constituents. At last he sent a letter asking: "What are you doing with so much pea seed? I ship order today; but are you planting your whole county to peas?" The answer was: "We are not planting them at all. We are using them for soup."

Built to Measure.—"Golly, but I'se tiuh'd," sighed Eph Johnson's oldest.

"What you-all been a-doin'?" asked his pal 'Rasmus.

"Well, you see," explained young Eph, "Paw's settin' fence posts, and I'm just five feet tall. So I'se been a-lyin' down and a-gettin' up all round his ten-acre field, so's he kin measure posts ten feet apart."—Country Gentleman.

A Start.—It was in a crowded street car. During one of those sudden lulls a coin was heard to drop. An old man stooped and picked it up.

"Has anyone lost a dollar?" he asked. Several passengers searched hurriedly, and three called, "I have."

"Well, here's a penny toward it," said the old man.—Country Gentleman.

Obviously.—"Mary," said the teacher, "what is the function of the stomach?"

"The function of the stomach," the little girl answered, "is to hold up the petticoat."—Country Gentleman.

The Court's Decision.—PLAINTIFF'S COUNSEL—"Your honor, unfortunately in this case I am opposed by the most unmitigated scoundrel—"

DEFENDANT'S COUNSEL—"My learned friend is such a notorious perverter—"

JUDGE—"Will counsel kindly confine their remarks to such matters as are in dispute?"—Pittsburg Chronicle-Telegraph.

A Modest Sheet.—An oriental paper having an English section printed the following notice:

"The news of English we tell the latest. Writ in perfectly style and most earliest. Do a murder commit, we hear of and tell it. Do a mighty chief die, we publish it and in borders somber. Staff has each one been colleged and write like the Kipling and the Dickens. We circle every town and extortionate not for advertisements."—Everybody's Magazine.

Met His Match.—Struck by the notice, "Iron Sinks," in a shop window, a wag went inside and said that he was perfectly aware of the fact that "Iron sank."

Alive to the occasion, the smart shopkeeper retaliated:

"Yes, and time flies, but wine vaults, sulphur springs, jam rolls, grass slopes, music stands, Niagara Falls, moonlight walks, sheep run, Kent hops and holiday trips, scandal spreads, standard weights, India rubber tires, the organ stops, the world goes round, trade returns, and—"

But the visitor had bolted. After collecting his thoughts, he returned and, showing his head at the doorway, shouted: "Yes, I agree with all of that perfectly—and marble busts."—Irish World.

Not Too Healthy.—"It is healthier to be cremated," says an English physician. Maybe so, but for our part we know we should never be the same man again.—Boston Transcript.

Before but After.—WIFE (as door-bell rings)—"That woman always comes here just before dinner."

HUB—"Then it's evident that she comes here after dinner."—Boston Transcript.

Boiled Down.—Not long ago the editor of an English paper ordered a story of a certain length, but when the story arrived he discovered that the author had written several hundred words too many.

The paper was already late in going to press, so there was no alternative—the story must be condensed to fit the allotted space. Therefore the last few paragraphs were cut down to a single sentence. It read thus:

"The Earl took a Scotch highball, his hat, his departure, no notice of his pursuers, a revolver out of his hip pocket, and finally, his life."—Journal of American Medical Association.

Rewarded.—A venerable judge sat in the place of honor at a reception. As a young lady of dazzling charms walked past he exclaimed almost involuntarily: "What a beautiful girl!"

The young woman overheard the justice's compliment, turned and gave him a radiant smile. "What an excellent judge!" she said.—Pittsburg Chronicle-Telegraph.

ERNEST L. WHITE

Oil Stocks
Investment Bonds

General Insurance

556 Gas and Electric Building
Phone Main 2360
DENVER COLORADO

We Buy, Sell and Quote All ACTIVE STOCKS

Our private wire system reaches principal Wyoming centers and INSURES OUR CUSTOMERS BEST MARKET PRICES.

Thomas A. Ryan & Co.
715 17th Street Denver, Colo.

D. S. Wageley & Co.

STOCKS—BONDS
INVESTMENT SECURITIES

Bought—Sold—Quoted

Our statistical department is most complete and at your service

MAIN 7986 MAIN 7987
709 COLORADO BUILDING
DENVER, COLO.

LIVE STOCK LOANS

Our Specialty

Always
at Your
Service



Tell Us
Your
Needs

214-215 Boston Building
Denver, Colorado

Richard Peete

ATTORNEY-AT-LAW

511 Ernest & Cranmer Building
Denver, Colo.
Handles Live-Stock Claims

AUTOMOTIVE SUPPLIES

Under New Management

Acme Rubber Co.

Phone Champa 3970
319 SIXTEENTH STREET
Denver, Colo.

STOCKGROWERS

Save your TIRES by proper repair work. We employ experts only in our Repair Department

E. R. Cumbe, Pres.

J. W. Billow, Secy.

"Rugged—Traffic—Cord"

Federal Tires

FEDERAL RUBBER TIRE
WORKS CO.

1614 BROADWAY, DENVER
21 years in the Tire business in Denver

ANNOUNCING The Famous Worm-Drive

Coleman Tractor

Simplest, Most Dependable,
Most Efficient

Write for full particulars

Coleman Tractor Corp.

D. M. Kershner, Distributor
1544 Court Place, Opp. Courthouse
Denver, Colo.

Since 1903

Phone Main 4088



AUTO AND TRACTOR

Radiators

REPAIRED AND CLEANED

Distributor for Flexo, Aero and McKinnon
Cores. Tinned thruout and guaranteed
the best at a moderate price.

1331 Broadway, Denver, Colo.

THE BLACK COW OF COUNTY CORK

Are Americans, too, in quest of the "Black Cow of Cork"? Are we not here, on this side of the Atlantic, just as insistent on our favorite cuts—and the choicest of these—as a writer in the *Meat Trades' Journal* of London pictures the Britisher to be, after this fashion:

"I have sighed for the golden days when beef was meat and mutton was meat, when the public did not refuse to accept as meat everything but the particular form of animal food of which there happened to be a shortage. Now that, for the moment, there is a pretty evenly proportioned supply of mutton and beef, a new twist in the situation crops up. The epicurean has now decided that a wing rib is the only form in which he wants his beef; that a shoulder or a leg is the only form in which he wants his mutton. My letter-bag is full of complaints—from the consumer that he has been able to get nothing but 'top' ribs for weeks; from the butcher that he cannot get rid of the rest of the carcass when the 'fancy' joints are cut and sold. Now, this is a situation which must not be allowed to arise in present conditions. Neither the Food Controller nor the butcher, but nature herself, is here the governing factor, and the sooner we realize that to someone, some weeks, must fall the 'top' ribs and the scrag, the better will it be for the rest of us. We cannot all have wing ribs and shoulders; the butcher cannot insist on everyone having wanted cuts with unwanted cuts, or he will find himself in court answering a charge of imposing a 'condition of sale'; it behooves us, therefore, to discipline ourselves for the common good, to make up our minds that it is indefensible in these times to stick out for particular 'cuts' of anything except in our turn and in our exact share. By all means let us see that we get our fair share of the best—but equally let us see that we clamor for no more than our share.

"As a matter of fact, we are, too many of us, in quest of that famous beast from County Cork—the black cow. 'When they goes to kill a cow there,' says the historian, 'they dhrove her out through the shreet, and a man in front o' her ringing a bell, and another man with her, and he having a bit o' chalk (and it *should* be a black cow). Everyone then can tell what bit of her they want, and the man dhraws it out on her with the chalk. But it *should* be a black cow.' Let us, till times and supplies get more or less normal again, give up the quest of the Black Cow. In the doing of it we may perchance find ourselves in possession of the Blue Bird—a thing equally elusive, but of infinite worth."

Good for Both.—"Mrs. Gabbie and myself are not on speaking terms."

"Never mind, my dear. It won't hurt either of you to rest up a little."—Judge.



TenEyck MOTOR CO.

Chas. H. Ten Eyck

We are the people to
handle your next
repair job.

Dodge, Hudson, Paige,
Buick Service
of which we are specialists
We repair all makes of autos and
weld all metals

815 BROADWAY
Ph. South 1099 Denver, Colo.

THE

America Rubber Co.

Broadway and Second Ave.
Phone South 2137 Denver, Colo.

Bad Weather Auto Needs

Anti-Freeze for Radiators
Radiator Covers, Chains
Windshield Cleaners

When in town make this your headquarters.

Mail orders given prompt attention

"Viz-Spark"

The greatest improvement in spark
plugs since the introduction of the
internal combustion motor.

Write us for detailed information
regarding the operation of this wonder-
ful spark plug with the visible-jump-
intensified spark.

The

Standard Auto Accessories Company

714 Eighteenth St., Denver, Colo.

We are Colorado Distributors for

Economy

TIRES and TUBES

Built for country roads and guaran-
teed for 6,000 miles.

Economy Tires are high class—the equal of any
tire you have ever used—and the price will reduce
your tire bill. Write for prices.

Send us your worn tires. We will fix them right
at reasonable price.

American Vulcanizing
Company 1736 Broadway
Denver, Colo.

THE SHEEP-KILLING PARROT OF NEW ZEALAND

His name is Kea. In size he is little larger than a pigeon. His home is the mountain wildernesses of the South Island of New Zealand. Settlement there is sparse. Here and there is a homestead station, with scattered shepherds' huts miles away from the isolated little community. It is here he seeks his prey.

Long a suspect, it was not until the first decade of this century that the kea became a convicted murderer. A young naturalist, named Marriner, went into his haunts and got his number. From an eater of berries and roots, he was found to have developed into a ferociously carnivorous bird. In most cases he attacks the best of the flock. His usual mode of procedure is thus described by Mr. Marriner, as quoted in the *Pastoral Review* of Melbourne:

"The bird settles on the ground near its quarry, and, after hopping about here and there for some time, leaps on to its prey, usually on the rump. If it cannot obtain a firm grip with its claws, the movement of the sheep may cause it to fall; but the kea seems rather to enjoy the sensation, and so tries again, until it has securely perched itself on the sheep's back. Then the murderer begins cruelly to pull out the wool with its powerful beak until it gets down to the flesh. The sheep, which for some time has been moving uneasily about, gives a jump as the beak enters the flesh, and then commences to run wildly about here and there in vain efforts to rid itself of its tormentor. When, however, the poor beast discovers that it cannot dislodge its enemy, it seems to lose its head, and rushes blindly about, usually at a high speed. Sometimes the birds run the sheep to death, and then gorge themselves on the dead body. At other times they never really reach a vital part of the animal's anatomy, but, after severely wounding it, they leave it, and the poor brute wanders about with a large gash, sometimes four or five inches across, on its rump, and torn open so much that the transverse processes of the vertebrae can be seen. The sheep struggles along until blood poisoning, caused by filth and exposure, sets in, and the unfortunate beast lies down and gives up the struggle."

There has long been a price placed on keas' heads by county councils and station owners, and at one time every shepherd on back stations carried a gun.

How did the kea find out that sheep was good food? Mr. Marriner's theory is that hunger drove him to sample the carcasses of sheep killed for station food and hung on gallows till they were wanted. Near by would be the skins of these sheep hung over fences, with pieces of fat adhering to the skin. The kea, short of food when snow lay thick, would peck at these things and find them good.

An elephant's foot takes longer to cook than any other meat. To make it tender, it must be boiled for thirty-six hours.

O'Fallon's

FARM AND STOCKMEN'S SUPPLIES

are the Standard of Efficiency. They represent the largest, most reliable and most carefully selected lines in this territory.

THEY ARE THE BEST FOR THE WESTERN Farmer—Ranchman—Stockman

We carry complete lines of Electric Lighting Plants, Water Supply Systems, Irrigation Supplies, Engines, Pumps, Engineers' Specialties, Water and Stock Tanks, Hydraulic Rams, Feed Grinders, Ensilage Cutters, Hay Tools, Windmills, Plumbing and Heating Goods.

Write us or call and see us for prices and information.

The M. J. O'Fallon Supply Company

Fifteenth and Wynkoop Streets, Denver, Colorado

Galloway Cattle

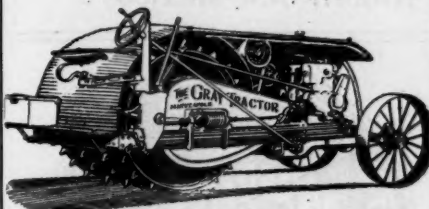
30 HEAD 2-YEAR-OLD BULLS
and 59 SPRING BULL CALVES

Strong, rugged farm bulls, range grown. Can spare a few females; 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. FRIZELL & SONS
FRIZELL, Pawnee Co., KANSAS

Gray Tractor

Dependable and Practical



Built for the man who wants good machinery. The Gray Tractor is in a class by itself. Manufactured for 10 years; sold in Colorado for 5 years.

WRITE FOR ILLUSTRATED BOOKLET

Gray Tractor Agency

Wm. Saighman, Manager
Cor. 18th and Wazee Sts., Denver, Colo.

If

You are raising stock and want to produce more and cheaper forage, it will pay you to write

Western Soil Bacteria Company

313 COOPER BUILDING
DENVER, COLORADO

MONTANA

Herefords

FOR SALE

60 Head Registered BULLS

Coming Two-Year-Old, Native-Raised. Beau Brummel and Beau Perfection Breeding. Good size. Good color

W. H. DONALD
Melville, Montana

Insurance

Your Automobile may Burn or be Stolen.
Your House may catch Fire—Insure with

JONES INSURANCE AGENCY

FRED C. JONES
Proprietor
202-3-4 TEMPLE COURT BUILDING, 15th AND CALIFORNIA STREETS
Main 3448-3449
Denver, Colo.

From the Bull Pen.—A correspondent of an English paper recently indulged in this bull: "Lest a whisper of the hidden hand be heard—" Was it an English clergyman who said to his congregation: "Brethren, the muddy pool of politics was the rock on which I split?"—Outlook.

Sunnyside Stock Farm

Ottawa, Illinois

J. J. HORNUNG, Proprietor

Breeder of Pure-Bred Hereford Cattle and Percheron Horses.

Specialty: Range Bulls, in car lots or as desired.

The Western Sugar and Live Stock Business

One Acre

of well - balanced Western farm land growing sugar beets produces American sugar for American people and in addition sufficient feed in the form of by-products to fatten at least

1 1/2

American Steers or Ten Lambs

THE GREAT WESTERN SUGAR CO.
DENVER, COLORADO



Navajo Stock Medicines

Used extensively thruout the western states with excellent results. Meritorious remedies for Sheep, Cattle, Horses and Hogs.

NAVAJO MANUFACTURING CO.
1649-51 Blake St., Denver, Colo.



FOR SALE. Black-faced, big, hardy bucks, lively rustlers, and right ready for business. Registered Shropshires. Crated or in car-lots. Everyday Prices.
HOWARD CHANDLER, Charlton, Ia.

HORN BRANDS

Leading Pure Breed raisers pronounce these the best brands obtainable. Handy, efficient, durable, non-blurring.

STOCK BREEDERS' SUPPLIES
Write for information and catalogue
THE WESTON MFG. and SUPPLY COMPANY
1936 Speer Blvd., Denver, Colo.

Head & Co. Cotton Seed Cake

(Incorporated)

AND MEAL—Car Lots

Dependable Service. Wire or write for delivered prices.

DALLAS, TEXAS

PASTURE-RAISED

Registered Herefords

One hundred and fifty head of BULLS, one to two years old, now for sale

Bred since 1896 along the line of producing the best possible Range Bull. Only Herd Bulls of unquestioned individuality and rich breeding in use. Sons of Bright Stanway, Domino Jr., Prince Rupert 8th, Prince Domino, Beau Gaston, Beau Beauty, and Good Donald are the sires, and the dams have same breeding. The BEST RANGE BULLS IN CARLOAD LOTS our specialty.

T. E. MITCHELL & SON, Albert, New Mexico

Miller Bros.

SAN ANTONIO, TEXAS

Dealers in all Grades of

Cotton Seed Cake, Meal and Hulls

Prompt or deferred shipments

References:

Colonel Ike T. Pryor, San Antonio, Tex.
Frost National Bank



Booklets Folders

and other Advertising Matter

WRITTEN, DESIGNED, EXECUTED

For the Stockman

by the

CAVALLY AD Service
620-622-624
Nineteenth St.
Denver

Artistic Advertising
Attracts Attention



YOU SAVE

From \$7.00 to \$15.00 on every Saddle purchased of us. Send for free catalogue.

FROM MAKER TO CONSUMER

The Fred Mueller Saddle & Harness Co.

1413-19 LARIMER STREET
Denver, Colo.

F. W. Brodé & Company

(The Oldest Firm in the Business — Established 1875)

401 NORTH TEXAS BUILDING, DALLAS, TEXAS

CATTLE FEEDERS, ATTENTION!

Don't encourage speculation—Buy your **Cake, Meal and Hulls** from an established concern, financially able to take care of its contracts. We refer you to your banker or the Mercantile Agencies.

WIRE OR WRITE FOR QUOTATIONS